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5.1.6 Compugen Ltd.		; Search time 4402 Seconds (without alignments) 10570.999 Million cell updates/sec	aCaaaaaaaaaaaaaaa 1277		residues	eters: 65645750						results predicted by chance to have a it to the score of the result being printed, of the total score distribution.	S	Description	BB641267 BB641267 BB264222 BB264222 CO800921 AGENCOURT	BG071693 H3102B03- BG084518 H3102B03-	COSOSSIS MISTOCOURT	EF4 / 1866 UI-M-BH3- CO815317 AGENCURT	CO797395 AGENCOURT BB704019 BB704019	CO804482 AGENCOURT A1854700 UI-M-BHO-	BB703259 BB703259 BB704648 BB704648	BB705931 BB705931	AU023153 AU023153 BE946858 UI-M-BH3-	BB704449 BB704449 BB703869 BB703869	BB706957 BB699732 BB699732	BB704146 BB704146 BB700620 BB700620	
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RCE	Mus musculus (house mouse)
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	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
PERENCE	<pre>1 (bases 1 to 675) Arakawa.T Carninci.P Pukuda.S Puruno.M Hanagaki.T</pre>
	Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K.,
	OMNO,M., Okazaki,Y., Okido,i., Salico,k., Sakai,N., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Socabe,Y., Suzuki,H. Tacami,M. Tacawa,A. Takahashi,F.
	Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y.
TTLE	KIKEN Mouse ESTS (Arakawa,T., et al. 2001) Unpublished (2001)
MENT	Contact: Yoshihide Hayashizaki Laboraton, for Genome Freloration Desearch Grown Diken Genomic
	Sciences Center (GSC), Yokohama Institute
	sical and Chemical Research (RIKEN)
	1-7-22 Suentio-Cilo, 18urumi-ku, 10konama, kanayawa 230-0043, dapam Tel: 81-45-503-9222
	Fax: 81-45-503-9216
	Email: genome_res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
	Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh.M Konno.H Okazaki,Y Muramatsu.M. and Havashizaki,Y.
	Normalization and subtraction of cap-trapper-selected CDNAs to
	prepare full-length cDNA libraries for rapid discovery of new
	wagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E.,
	Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura.S., Kawai.J., Okazaki,Y., Muramatsu.M., Inoue,Y., Kira,A.
	and Hayashizaki, Y.
	RIKEN integrated sequence analysis (RISA) system384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res.
	10 (11), 1757-1771 (2000) Vonno H. Phinishi V. Shibata K. Troh M. Carninci P.
	Sugahara, Y. and Hayashizaki, Y.
	Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a
	nonredundant cDNA library. Genome Res 11 (2), 281-289 (2001)

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                                                           Hayashizaki, Y. Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences. Mamm. Genome. 12, 673-677 (2001)
Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue type="cortex"
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/lab_host="DH10B"
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/clone="A830014H23"
           ., Shinagawa, A., Saito,
., Fukuda, S., Hara, A.,
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                                                                                                                            tissue type="cortex"
dev stage="10 days neonate"
lab_host="DH108"
                                                                                  organism="Mus musculus"
                                                                                            'mol_type="mRNA"
|db_xref="taxon:10090"
|clone="A830014H23"
                                                          location/Qualifiers
                                               prepare mouse tissues
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                                                                      999.
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/clone lib="NIH MGC_2S6"
/clone lib="Organ: Occyte; Vector: pExpress-1; Site_1: EcoRV;
Site_2: Not1; cDNA was primed using oligo-dT primer:
Site_2: Not1; cDNA was primed using oligo-dT primer:
5: pGACTAGATCGGAGGGGCGCC(T) 25-3; and cloned into
the EcoRV/Not1 sites of pExpress-1. Size-selection >0.5 kb
resulted in an average insert size of 1.2 kb. This is a
primarylibrary (normalized primary library is NIH MGC_257)
and was constructed by Express Genomics (Frederick, MD).
Note: this is a NIH_MGC library"
                                                   1187
                                                                                                                                                                                                                                                                                                                                                                                                                      CO800921 845 bp mRNA linear EST 05-AUG-2004
AGENCOURT 30259223 NIH MGC 256 Mus musculus cDNA clone
IMAGE:30935466 5', mRNA sequence.
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Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Contact: Daniela S. Gerhard, Ph.D.
Contact: Daniela S. Gerhard, Ph.D.
Coffice of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Kathleen Horner, Stanford University
cDNA Library Preparation: Express Genomics
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                1188 TCCCTTTCCAAATTCTTCATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAA
                                                                                                                                                                                  600 TCCCTTTCCAAATTCTTCATGACAGAGAGTG-TACTTGGATATAAAGCCTGTGAATAAAA
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AACGCCTGTCCTGCGACAGCACCTTCAGCTTCAAATACATCATTTAGTGAGAGTCGAAAA
                                                   CGTTTCTGCTAGATGGGCTAATGGAATGGACAAGTGAGCTTTCTCCCCTCTTCACCTCT
                                                                             1 AAGGCGGGGGGGGGGGGGACGCACCCATGTTCCCGGCGAGCACGTTCCACCCTGCCCG
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection
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Pred. No. 2e-136;
0; Mismatches 1; Indels 2
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0; Mismatches
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High quality sequence stop: 601.
Location/Qualifiers
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/db xref="taxon:10090"
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AUTHORS
TITLE
JOURNAL
COMMENT
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CO800921
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/lab host="UBHIOB"
/clone lib="NAIDB"
/clone lib="NAIDB"
/clone lib="NAIA Mouse 15K cDNA Clone Set"
/clone is among a rearrayed set of 15,247 clones from licente is among a rearrayed set of 15,247 clones from licente converse (including preimplantation stage embryos from unfertilized egg to blastocyst, embryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos, and E12.5 female mesonephros/gonad) and one newborn ovary CDNA library. Average insert size 1.5 kb. All source libraries are cloned unidirectionally with oligo(d7)-Not primers. References include: (1) Genome-vade expression profilling of mid-gestation placenta and embryo using a 15,000 mouse developmental clone expression profilling of mid-gestation mouse gene expression patterns during preimplantation mouse development, 2000, Development, 127: 1737-1749; (3) Genome-wide mapping of unselected transcripts from extraembryonic tissue of 7.5-day mouse embryos reveals enrichment in the t-complex and under-representation on the X chromosome, 1998, Hum Mol Genet 7: 1967-1978."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="H3102B03".
/sex="Clones arrayed from a variety of cDNA libraries"
/dev_stage="Clones arrayed from a variety of cDNA
libraries"
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                                                               /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="niaEST:H3102B03-3"
/db_xref="taxon:10090"
                                         organism="Mus musculus"
location/Qualifiers
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Other ESTS: H3102B03-5
Contact: George J. Kargul
Laboratory of Genetics
National Institute on Aging/National Institutes of Health
333 Cassell Drive, Suite 4000, Baltimore, MD 21224-6820, USA
Email: cdna@lgsun.grc.nia.nih.gov/cDNA/15k.html for details.
This clone set has been freely distributed to the community. Please
visit http://lgsun.grc.nia.nih.gov/cDNA/15k.html for details.
Plate: H3102 row: B column: 03
Seq primer: -21M13 Forward
High quality sequence stop: 615
POLYA=Yes.
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H3102B03-3 NIA Mouse 15K cDNA Clone Set Mus musculus cDNA clone H3102B03 3', mRNA sequence.
BG071693.2 GI:40072037
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/clone_lib="NIA Mouse 15K cDNA Clone Set"
/clone_lib="NIA Mouse 15K cDNA Clone Set"
/clone is among a rearrayed set of 15.247 clones from 15 clone is among a rearrayed set of 15.247 clones from 11 embryo cDNA libraries (including preimplantation stage embryos from unfertilized egg to blastcoyers, embryonic part of B7.5 embryos, extraembryonic part of B7.5 embryos, and B12.5 female mesonephros/gonad) and one newborn ovary CDNA library. Average insert size 1.5 kb. All source libraries are cloned unidirectionally with Oligo(dT)-Not primars. References include: (1) Genome-wide expression profiling of mid-gestation placenta and embryo using a 15,000 mouse developmental CDNA microarray, 2000, proc. Natl. Acad. Sci. U S A, 97: 9127-9112; (2) Large-scale CDNA analysis reveals phased gene expression parterns during preimplantation mouse development, 2000, Development, 127: 1737-1749; (3) Genome-wide mapping of unselected transcripts from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: George J. Kargul
Laboratory of Genetics
National Institute on Aging/National Institutes of Health
National Institute on Aging/National Institutes of Health
333 Cassell Drive, Suite 4000, Baltimore, MD 21224-6820, USA
Email: cdnaelgsun.grc.nia.nih.gov
This clone set has been freely distributed to the community. Please
visit http://lgsun.grc.nia.nih.gov/cDNA/15k.html for details.
Plate: H3102 row: B column: 03
Seq primer: -2nM1 Reverse
High quality sequence stop: 595
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H3102B03-5 NIA Mouse 15K cDNA Clone Set Mus musculus cDNA clone
BG084538
  CCICTTCCCTTTCCAAATTCTTCATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAA 1242
                            76 CCTCTTCCCTTTCCAAATTCTTCATGACAGAG-TACTTGGATATAAAGCCTGTGAA 18
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Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
1 (bases 1 to 595)
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dev_stage="Clones arrayed from a variety of cDNA
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Other_ESTs: H3102B03-3
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/organism="Mus musculus"
/mol_type="mRNA"
/strain="CS7BL/64"
/db_xref="niaEST:H3102B03-5"
/db_xref="taxon:10090"
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AGENCOURT 30247201 NIH MGC 256 Mus musculus cDNA clone
IMAGE:30936113 5', mRNA sequence.
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Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
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National Institutes of Health, Mammalian Gene Collection (MGC)
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enrichment in the t-complex and under-representation
the X chromosome, 1998, Hum Mol Genet 7: 1967-1978."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Bmail: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Kathleen Horner, Stanford University
CDNA Library Preparation: Express Genomics
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                                                                                                                                                                                                                                                                                                                                                        DB 4; Length 595;
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                                                                                                                                                                                                                                                                                                                                                        Score 582.4; DB 4;
Pred. No. 2.6e-131;
0; Mismatches 1;
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CO809618.1 GI:51027468
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/db xref="tann="C5/BL/60"
/db xref="taxon:10090"
/clone='UI-M-BH3-awu-b-08-0-UI"
/clone='UI-M-BH3-awu-b-08-0-UI"
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/lab_host="MHH BMAP M S4"
/clone lib="NIH BMAP M S4"
/crebellum, brain stems, olfactory bulbs, hypothalamus, cortex, amygdala, basal ganglia, pineal gland, striatum, nepresentation of chNAs from which ESTS had already been generated in this process: NIH BMAP M S3.1, NIH BMAP M S3.1, NIH BMAP M S3.2, and NIH BMAP M S3.3, NIH BMAP M S3.2, and colous from which stranded circles. The the NIH BMAP M S3.3, NIH BMAP M S3.3, And BMAP M S3.3, and NIH BMAP M S3.3, and nith a pool of the NIH BMAP M S3.3, NIH BMAP M S3.3, and clones from which a gool of the NIH BMAP M S3.3, NIH BMAP M S3.3, and clones from of single-stranded circles (subtracted library) was purified by hydroxyapatite column chromatography, linc pluoble-stranded circles (subtracted the linc linc linc linc linc procedure has been previously described (Bonaldo, Lennon and Soares, Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: M.B. Soares Lab Clone distribution: Researchers may obtain BMAP cDNA clones from RESEARCH GENETICS. It should be noted that Bento Soares is generating a small number of additional specialized non-redundant arrays of BMAP cDNAs whose availability will be considered under appropriate and limited collaborative arrangements
                                                                                                                                                                                                                          Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 594)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
Normalization and subtraction: two approaches to facilitate gene
UI-M-BH3-awu-b-08-0-UI.rl NIH BWAP M S4 Mus musculus CDNA clone
UI-M-BH3-awu-b-08-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Chin, H
National Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda,
20892-9643, USA
Tel: 301 443 1706
Fax: 301 443 9890
Email: mEST@mail.nih.gov
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99.5%; Pred. No. 2.2e-128;
iive 0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                             Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seg primer: M13 Reverse
                                                                                          BF471866
BF471866.1 GI:11541049
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593; Conservative
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Best Local Si
Matches 593;
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                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
PUBMED
                             DEFINITION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="MilloB TonA"
/lab_host="MilloB TonA"
/clone_lib="NHH MGC 266"
/note="Organ: Occyte", Vector: pExpress-1; Site_1: EcoRV;
/note="Organ: Occyte", Vector: pExpress-1; Site_1: EcoRV;
Site_2: Not1; cDNA was primed using oligo-dT primer:
Si-pGACTAGTTCTAGATCGGAGGGGCGC(TI) 25-3; and cloned into
the EcoRV/Not1 sites of pExpress-1. Size-selection >0.5 kb
resulted in an average insert size of 1.2 kb. This is a
resulted in an average insert size of 1.2 kb. This is a
nequality insary/incary (normalized primary library is NIH MGC 27)
and was constructed by Express Genomics (Frederick, MD).
Note: this is a NIH_MGC library"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCCTTATCCGCAGGCCACCAAAGCCGGGGATGGCTGGAAGGTTCGGAGCCAGGGGGTGC
                                                                                                     pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                         cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: NDAM1191 row: e column: 18
High quality sequence stop: 605.

1. 731./oualifiers
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Pred. No. 1.3e-128;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                         organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="IMAGE:30936113"
                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/db_xref="taxon:10090"
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Best Local Similarity 99.8%;
Matches 572; Conservative
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EST 04-DEC-2000

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Length

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/clone_lib="NIH MGC_256"
/note="Organ: oocyte; Vector: pExpress-1; Site I: EcoRV;
Site 2: Not1; cDNA was primed using oligo-dT primer:
5'-pGACTACTACTACGCGAGGGCGCCGCC(T)25-3' and cloned into
the EcoRV/Not1 sites of pExpress-1. Size-selection >0.5 kb
resulted in an average insert size of 1.2 kb. This is a
primarylibrary (normalized primary library is NIH MGC 257)
and was constructed by Express Genomics (Frederick, MD).
Note: this is a NIH_MGC library"
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AGENCOURT 30246265 NIH MGC 257 Mus musculus cDNA clone
IMAGE:30935142 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                        Length 722;
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                                                                                                                                                                                                                                                                                        Score 522.8; DB 7;
Pred. No. 1e-116;
0; Mismatches 47;
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/clone="IMAGE:30939000"
/lab host="DH10B TonA"
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IMAGE: 00939000 5', mRNA sequence.
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Email: cagabba-r@mail.nih.gov
Tissue Procurement: Dr. Kathleen Horner, Stanford University
cDNA Library Preparation: Express Genomics
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llni.gov
Plate: NDAM1198 row: n column: 01
High quality sequence etop: 495.
                                                           674
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
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TGAGCCTGGGAGCGAGGAGCCATGTCCTGCCGCAGAGATGGCTCAGGACCCCGGTGATTC
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REFERENCE AUTHORS TITLE JOURNAL COMMENT

ACCESSION VERSION KEYWORDS SOURCE ORGANISM source

PEATURES

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Unpublished (2001)

Unpublished (2001)

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1-7-2 Suchino-cho, Tsurumi-ku, Woushara, Y., Shibata, K.,
Itch, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.
Itch, M., Konno, H., Okazaki, Y., Muramatsu, M., Janaka, T.,
Wagai, K., Fujiwake, S., Inoue, K., Togawa, K., Tanaka, T.,
Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A.
and Hayashizaki, Y.
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Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 525)
Akimura,T., Arakawa,T., Carninci,P., Furuno,M., Hanagaki,T.,
Hayateu,N., Hiramoto,K., Hiraoka,T., Hirozane,T., Imotani,K.,
Ishii,Y., Ito,M., Kawai,J., Kojima,Y., Kouno,H., Kouda,M.,
Matsuyama,T., Nakamura,M., Nishi,K., Nomura,K., Numasaki,R.,
Sasaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sakazume,N.,
Sasaki,D., Sato,K., Shibata,K., Shinagawa,A., Shiraki,T.,
Sasaki,D., Sato,K., Tagawa,A., Takahsahi,F., Takaku-Akahira,S.,
Tanaka,T., Tomaru,A., Togawa,A., Takahsahi,F., Takaku-Akahira,S.,
Muramateu,M. and Hayashizaki,Y.
RIKEN Encyclopedia of Mouse Full-length cDNAS (Akimura,T., et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIKEN, integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000)

Komno, H., Pukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Computer-based methods for the mouse full-length cDNA computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                          BB704019 RIKEN full-length enriched, in vitro fertilized eggs Mus musculus cDNA clone 7420459B08 3', mRNA sequence.
420 AGCTTICICCCCTCTTCACCTCTTCCCAAATICTTCAIGACAGACAGIG-TACIT 478
                                                                         531
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                                                                                                                 tissue_type="in vitro fertilized eggs"
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/strain="C57BL/6J"
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/lab_host="DH10B"
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/organism="Mus musculus"
/mol Lype="MRNA"
/mol Lype="MRNA"
/db_xrefe"taxon:10090"
/db_xrefe"taxon:10090"
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/lab host="MIH_MGC_257"
/lone lib="NIH MGC_257"
/note="Organ: ocorte; Vector: pExpress-1; Site_1: EcoRV;
Site_2: NOTI; cDNA was primed using oligo-dr primer:
5. PGACTAGTTCTAGATCGCAGCGCCCC(7125-3' and cloned into
the EcoRV/NotI sites of pExpress-1. Size-selection >0.5 kb
resulted in an average insert size of 1.0kb. This is a
normalized library (primary library is NIH MGC_256) and
was constructed by Express Genomics (Prederick, MD). Note:
this is a NIH_MGC library"
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                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. 1 (bases 1 to 546)
NHH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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                                                                                                                                                                                                                                                                 Contact: Daniela S. Gerhard, Ph.D.
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Bldg. 31 RM10A07 Bethesda, MD 20892
Bmail: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Kathleen Horner, Stanford University
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Pred. No. 9.2e-112;
0; Mismatches 6;
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ilarity 98.5%;
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421 TCTCGTCCGTGACCTTCTGTGGNCTCTCCTCCTCACTGGNNAGTGCGGGANGCANGCAGA 480
                                 Contect: Daniela S. Gerhard, Ph.D.
Contect: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 RmloA07 Betheada, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Kathleen Horner, Stanford University
cDNA Library Preparation: Express Genomics
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
thtp://image.llnl.gov
Plate: NDAM1200 row: j column: 15
High quality sequence stop: 418.
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Pred. No. 2.3e-106;
0; Mismatches 32;
                                                                                                                                                                                                                                                                                                                                  organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:10090"
/clone="IMAGE:30939686"
                                                                                                                                                                                                                                                                                           Location/Qualifiers
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Best Local Similarity 93.5
Matches 517; Conservative
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                                                                                                                                            /note="Site_1: Sal1; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was GAGAGAGAAGAACAAGAGCTCTTTTTTTTTTTTVN 3'], CDNA was
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AGENCOURT 30253783 NIH MGC 256 Mus musculus cDNA clone
IMAGE:30939686 5', mRNA sequence.
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Mamaalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
1 (Dases 1 to 687)
NIH-MGC http://mgc.nci.nih.gov/.
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Mus musculus
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/db xref="taxon:10090"
/dlone="Ull-M-BH0-akc-d-12-0-Ul"
/dev stage="27-32 days"
/lab_host="DH10B (Life Technologies)"
/lab_host="DH10B (Life Technologies)"
/lone="Vector: pT743D-Pac (Pharmacia) with a modified
/note="Vector: pT743D-Pac (Pharmacia) with a modified
polylinker; Site 1: Not I; Site 2: Eco RI; The
NIH BMARP M S1 library is a subtracted library derived from
a mixture of normalized libraries from ten regions of the
mouse brain (cerebellum, brain stems, olfactory bulbs,
hypothalamus, cortex, amygdala, basal ganglia, pineal
gland, striatum, hipoccampus). The driver used for
subtraction consisted of a pool of 20,000 cDNA clones
obtained from non-normalized and normalized libraries of
these ten regions of the mouse brain.
TAG_ISSUE-Basal-ganglia
TAG_LIB=NIH BMAP_M S1
TAG_SEQ=TGTAC"
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National Institute of Mental Health
6001 Executive Blvd. Room 7N-7190, MSC 9643, Bethesda, MD
20892-9643, USA
761: 301 443 1706
Fax: 301 443 9890
Email: mEST@mail.nih.gov
The sequence contained an oligo-dT track that was present in the oligonucleotide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A tail. The sequence tag present in the CDNA between the NotI site and the oligo-dT track served to identify it as a clone from the normalized basal ganglia library CDNA Library Preparation: M.B. Soares Lab Clone distribution: NIH BMAP CDNA clones will be means that is soon to be determined. When NHH determines the means for distribution of the BMAP clones, when NHH determines the means for distribution of the BMAP clones, this record will be updated accordingly when that means is determined. Botty-vere
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UI-M-BHO-akc-d-12-0-UI.s1 NIH BMAP_M_S1 Mus musculus cDNA clone
UI-M-BHO-akc-d-12-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 499)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
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Pred. No. 8.9e-105;
0; Mismatches 2;
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/mol_type="mRNA"
/strain="C57BL/6J"
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97044477
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99.2%;
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AI854700.1 GI:5498606
EST.
                                                                   537 GTGCGCCAGAAG 549
                                 548 AGGTGGCCGCGAG 560
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97; Conservative
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Best Local Simi
Matches 497;
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VERSION
KEYWORDS
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AI854700/c
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TITLE
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Bukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Merazoa; Chordata; Sciurognathi; Muridae; Murinae; Musmalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 491)
S. Akimura,T., Arakawa,T., Carninci,P., Furuno,M., Hanagaki,T.,
Hayatsu,N., Hiramoto,K., Hiraoka,T., Hirozane,T., Imotani,K.,
Ishli,Y., Ito,M., Kawai,J., Kojima,Y., Konno,H., Kouda,M.,
Matsuyama,T., Nakamura,M., Nishi,K., Nomura,K., Numasaki,R.,
Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sakazume,N.,
Sogabe,Y., Suzuki,H., Tagawa,A., Takahashi,P., Takaku-Akahira,S.,
Tanaka,T., Tomaru,A., Toya,T., Watahiki,A., Yasunishi,A.,
Muramatsu,M. and Hayashizaki,Y.
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Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
Fax: 81-45-503-9216
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Carninci.P., Shibata,Y., Hayatau,N., Sugahara,Y., Shibata,K.,
Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
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892 AAGGTGTTACTTCAAACAGTTCTGCCGAGTGTGTGAGAAATCCTACAACCTTACAGAGT
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/organism="Mus musculus"
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prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togwa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T.,
Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.
RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000)
Konno,H., Fukunishi,Y., Shibata,K., Itch,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.
Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Rease visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               was cloned into the XhoI and BamHI sites. Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC I. Cloning sites, 5' end: SalI; 3' end: BamHI"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dev_stage="egg"
/lab host="DH10B"
/clone lib="KREM full-length enriched, in vitro
/clone lib="KREM full-length enriched, in vitro
/clone lib="Site 1: Sal1; Site_2: BamHI; cDNA library was
prepared and sequenced in Mouse Genome Encyclopedia
Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory:
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98.2%; Pred. No. 1.4e-98;
iive 0; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                  'organism="Mus musculus"
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/clone="7420449J15"
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/strain="C57BL/6J"
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Matches 485; Conserv
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Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
Fax: 81-45-503-9216
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299 GGACAAACGCCTGTCCTGCGACAGCACCTTCAGCTTCAAATACATCATTTAGTGAGAGTC 358
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Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K.,
Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. . 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T.,
and Hayashizaki,Y.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Akimuza, T. Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T.,
Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirzozane, T. Imcanai, K.,
Ishii, Y., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kouda, M.,
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Sogabe, Y., Suzuki, H., Tagawa, A., Takahashi, F., Takaku-Akahira, S.,
Muramatsu, M. and Hayashizaki, Y., Watahiki, A., Yasunishi, A.,
RIKEN Bncyclopedia of Mouse Full-length cDNAs (Akimura, T., et al.
                                                                                                                                                                                                359 GAAAACGTTTCTGCTAGAFGGGGCTAATGGAATGGACAAGTGAGCTTTCTCCCCTCTTCA
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                                                                                                                                                                                                                           32.4%; Score 413.8; DB 2;
ilarity 93.0%; Pred. No. 4.1e-90;
Conservative 0; Mismatches 32;
           db_xref="taxon:10090"
clone="7420466L07"
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AU044294 Mouse sixteen-cell-embryo cDNA Mus musculus cDNA clone J0917G09 3', mRNA sequence.

RESULT 15 AU044294/c LOCUS DEFINITION

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Systematic analyses of genes expressed in 16-cell mouse embryo (The ERATO/Doi Project at Wayne State University)
Unpublished (1998)
Contact: Hirofumi Doi
Doi Bloasymmetry Project, ERATO
Japan Science and Technology Corporation (JST)
WBG Marive East 12F, 2-6 Nakase, Mihama-ku, Chiba 261-71, Japan
Email: hd@bioa.jst.go.jp.
Location/Qualifiers
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Sciurognathi, Muridae, Murinae, Mus.
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Mammalia; Eutheria, Rodentia, Sciurognathi, Muridae, Murir.
I (bases 1 to 436)
Ko,M.S.H., Kitchen,J.R., Wang,X., Threat,T.A., Sun,T.,
DePalma,G.E., Liang,Y., Kargul,G.J., Sharara,R., Lim,M.K.
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/clone="00917G09"
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Pred. No. 3.6e-88;
0; Mismatches 12;

    .436
    /organism="Mus musculus"

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                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
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                                              Mus musculus (house mouse)
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Similarity 97.0%;
34; Conservative 0
              GI:3979844
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Job time : 4411 secs
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9 AC096952 AC096952 Homo 5 BX931269 BX931269 Gallu 2 BX571888 BX571888 Danic 5 BX537133 BX537133 Zebra 9 HXA335296 AJ335296 Homo 9 AF429315 Homo	5.1 144000 9 AC123764 4.9 125020 9 AF429315 4.9 1393 11 PM1H12G 4.9 136551 2 AC048354	4.8 160327 4.8 240521 4.7 155337 4.6 155337	4.6 202831 10 ACLISSED 4.6 248550 1 SCO939120 4.6 94058 2 ACL141024 4.5 92310 2 AC108380	4.5 2000 6 AX655393 4.5 143406 10 AC092857 4.5 230329 2 AC142070	4.4 245210 2 AC137771 4.4 326544 2 AC118627 4.4 142402 2 CR407549	4.4 250011 5 BX548044 BX548044 BX548044	AY191415 NN Mus musculus zygote arre 1 AY191415 AY191415.1 GI:27808689	Mus musculus (house mouse) ISM Mus musculus Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. ICE 1 (bases 1 to 1260) RS Mu,X., Viveiros,M.M., Eppig,J.J., Bai,Y., Fitzpatrick,S.L. and			Baylor Plaza, Houston, TX 77030, USA Location/Qualifiers 1. 1260 /organism="Mus musculus" /mol_type="mRNA"	. /strain="129/SvBv" /db_xref="taxon:10090" /chzromoson="s" /map="between D5Buc48 and Txk" gene 11260	/ gene="Zari 1 .27
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 338 40	000 4444 1264		RESULT 1 AY191415 LOCUS DEFINITION ACCESSION VERSION	KEYWORDS SOURCE ORGANISM REPERENCE AUTHORS	TITLE JOURNAL MEDLINE PUBMED	REFERENCE AUTHORS TITLE	FEATURES	. o	S. CDS
, t d .	; Search time 5526 Seconds (without alignments) 10928.148 Million cell updates/sec	acaaaaaaaaaaaaaaaaa 1277		9053458					to have a being printed, ion.	Description	AY191415 Mus muscu AY283175 Rattus no AY19389 Mus muscu AC122733 Mus muscu AL671880 Mouse DNA	686 Mus muscu 519 Rattus no 993 Rattus no 083 Rattus no	416 Homo sapı 345 Sequence 176 Xenopus 1 177 Takifugu 178 Danio rer 970 Homo sapi 163 Homo sapi 163 Homo sapi
5.1.6 Compugen Ltd	cch tin out ali	ıcaaaaa		<pre>/45 residues parameters: 90</pre>					results predicted by chance to har to the score of the result being of the total score distribution. SUMMARIES	Desci	AY1 AY2 AY1 AC12 AL6	AC107686 AC126519 AC125993 AC127083 AC108848	AY191416 CQ16345 AY283176 AY283177 AY283178 AC007970 AC037443 AC092163 AY193890

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GREEPPPAVEMAQDPSDVAASRDRASPQSTEQDKERLRFQFLEQKYGYYHCKDCNIRW
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Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                                                                                    CTAAACGCCCCCATCGGCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCTGCG
                                                                                                                                                                      CAAAATCCGGTGGGAGGGGCCTATGTGTGTGTGTGCAGGGCACCAGTAAGGTGTTACT
             TCABACAGITCIGCCGAGIGIGIGAGAAAICCTACAACCCITACAGAGIGGAGGACAICA
                                                                CCTGTCAAAGTTGTAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACC
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                                                                                                                                                                                                                                                                                                              1 (bases 1 to 1280)
Wu,X., Wang,P., Brown,C.A., Zilinski,C.A. and Matzuk,M.M. Zygote arrest 1 (zarl) is an evolutionarily conserved genexpressed in vertebrate ovaries
Biol. Reprod. 69 (3), 861-867 (2003)
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1 (Zarl) mRNA, complete
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Wu,X. and Matzuk,M.M.
Direct Submission
Submitted (24-APR-2003) Pathology, Babylor plaza, Houston, TX 77030, USA
Baylor Location/Qualifiers
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114. .1260
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Pred. No. 2.1e-248;
0; Mismatches 1; Indels 1;
                                                                                                                                                                             97.5%;
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Best Local Similarity
Matches 1257; Conserv
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Мив musculus zygote arrest 1 (Zarl) gene, complete cds.
AY193889
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Nat. Genet. 33 (2), 187-191 (2003)
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Submitted (21-JAN-2003) Pathology, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
Sequence update by submitter
On Jan 21, 2003 this sequence version replaced gi:27808693.
Location/Qualifiers
  1139 ATGGATCGGACAAGTGAGCCTTCTCCCACGCCCCTCTCCCCTCTCCACCTCTCCCTTCTC
                                                                                                                                                                                                                                                                                                                                                               1196 CAAATTCTTCATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGC
                                                                                                                      1019 ACCCTAAACGCCCCCATCGTCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCT
                                                                                                                                                                     1080 GCGACAGCACCTICAGCTICAAATACATCATTTAGTGAGAGTCGAAAACGTTTCTGCTA-
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/gene="Zarl"
/note="oocyte-specific"
/codon_start=1
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Wu.X. and Marzuk, M.M.
Direct Submission
Submitted (09-DEC-2002) Pathology, Baylor College
Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 3987)
Wu,X. and Marzuk, M.M.
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join(1. .801,2574. .2666,2745.
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/strain="129/SvEv"
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Birren, B. Nusderson, S., Arachchi, H.M., Barna, N., Bastien, V., Anderson, M., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Anderson, M., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Anderson, M., Cooke, P. (Canderson, J.) Chopel, J., Coke, P. (Carlan, B.) Canderson, J., Coke, J., Cooke, P., Corum, B., DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., DeArellano, K., Diaz, J.S., Dodge, S., Perreira, P., Firsderald, M., Gage, D., Erickson, J., Faro, S., Ferreira, P., Fitsderald, M., Gage, D., Galagan, J., Gradham, L., Grand-Pierre, N., Hafes, D., Hagopian, D., Hagos, B., Hall, J., Horton, L., Hulme, M., Illiev, I., Levine, K., Lindblad-Toh, K., Liu, G., Liu, X., Lui, A., Mabbitt, R., Macdenald, P., Major, J., Manning, J., Matthews, C., Mcdonald, P., Major, J., Minora, T., Mienga, Y., Mcdonald, P., Major, J., Mihova, T., Marga, Y., Mcdonald, P., Major, J., Mihova, T., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Sewery, P., Smith, C., Spencer, B., Stange-Thomann, N., Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Stubbs, M., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassilliev, H., Venkataraman, V.S., Zembek, L., Vo, A., Wilson, B., Wt, X., Wyman, D., Young, G., Zainoun, J., Zembek, L.,
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Birren, B., Nusbaum, C. and Lander, E. Mus musculus chromosome 5, clone RP24-506B15
Unpublished
2 (bases 1 to 144954)
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HTG; HTGS PHASE1; HTGS_FULLTOP; HTGS_ACTIVEFIN.
Mus musculus (house mouse)
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LMAAEYVDSHQRAQLMALLSRMGPRSVSSRDAAVQVNPRRDASVQCSLGRRTLQPAGC
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PHRQDLCGRCKDKRLSCDSTFSFKYII"
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Pred. No. 1e-155;
0; Mismatches 1; Indels
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db_xref="GI:27808694"
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/number=4
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/gene="Zarl"
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Center: Whitehead Institute/MIT Center for Genome Research
                                                                                                                                                                                         NOTE: This is a 'working draft' sequence. It currently consists of 17 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
         Submitted (08-AUG-2004) Whitehead Institute/MIT Center for Research, 320 Charles Street, Cambridge, MA 02141, USA On Jul 4, 2004 this sequence version replaced gi:46240945. All repeats were identified RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
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Pred. No. 9.9e-156;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                              f unknown length
g of 3309 bp in length
f unknown length
g of 3689 bp in length
t unknown length
g of 15362 bp in length
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g of 8109 bp in length
f unknown length
g of 4806 bp in length
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98 142397: gap of unknown length
148 144434: contig of 2037 bp in length
15 144534: gap of unknown length
5 144554: contig of 420 bp in length.
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9 of 4441 bp in length
F unknown length
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unknown length
of 30314 bp in length
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of 23074 bp in length
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of 8750 bp in length
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206: gap of unknown length
5727: contig of 5521 bp in length
5827: gap of unknown length
15192: contig of 9365 bp in length
15292: gap of unknown length
                                                                                                                     /clone="RP24-506B15"
/clone_lib="RPCI-24 Male Mouse BAC"
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102163: gap of u
106969: contig o
107069: gap of u
130143: contig o
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138993: contig o
139093: gap of u
142297: contig o
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Sciurognathi; Muridae; Murinae; Mus
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Submitted (27-NOV-2002) Wellcome Trust Sanger Institute, Hinxton,
Cambridgeshire, CB10 1SA, UK. E-mail enquiries:
                                                                                 ACCGGGCCCCCCTCCTTCCTCCCCGGCTACAGACAGCTCATGGCCGCGGAGTACGTCGA
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rccrrarcccasccaccasccsssasccsssargscrssasgrrcssasccassccrsccs
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Mammalla; Eutheria; Rodentia;
1 (bases 1 to 200535)
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humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk On Nov 28, 2002 this sequence version replaced gi:22204349.	PENTURES Tron the Whole genome shotegun alone has only been used where it has from the Whole genome shotegun alone has only been used where it has from the Whole genome shotegun alone has only been used where it has from the Whole genome shotegun alone has only been used where it has from the Whole genome shotegun alone has only been used where it has been the Whole Wh

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                                     Birren, 320 Charles Street, Cambridge, MA U2141, USA

States, 240 Charles Street, Cambridge, MA U2141, USA

Anderson, M., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V.,
Bloom, T., Boqualavkiy, L., Bowkhgalter, B., Camarata, J., Chang, J.,
Choppel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B.,
Dakrellano, K., Diaz, J. S., Dodge, S., Dooley, K., Dorris, L.,
Erickson, J., Faro, S., Ferreira, P., FitzGerald, M., Gage, D.,
Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N.,
Hagopian, D., Hagos, B., Hall, J., Horton, L., Hulme, W., Iliev, I.,
Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T.,
Levine, R., Lindblad-Toh, K., Liu, G., Liu, X., Lui, A., Mabbitt, R.,
MacLean, C., Macdonald, P., Major, J., Manning, J., Matthews, C.,
Murphy, T., Naylor, J., Meneus, L., Mihova, T., Micol, R., Norbu, C.,
O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K.,
Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C.,
Retta, R., Rise, C., Rogov, P., Roman, J., Schauer, S., Schupback, R.,
Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thoman, N.,
Stojanovic, N., Stubbs, M., Talamas, J., Tesfaye, S., Theodore, J.,
Direct Submission, M., Waman, D., Young, G., Zainoun, J., Zembek, L.,
Direct Submission, M., Waman, D., Young, G., Zainoun, J., Zembek, L.,
Direct Submission, M., Waman, D., Young, G., Zainoun, J., Zimmer, A., and Zody, M.
Submitted (24-JAN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (08-AUG-2004) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Max 24, 2004 this sequence version replaced gi:44886211.
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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* This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

* 13441 contig of 23441 bp in length 13342 31361 contig of 7820 bp in length 13162 31461 gap of unknown length 13162 40409; contig of 8948 bp in length 40510 gap of unknown length 40510 gap of unknown length 40510 gap of unknown length 109029; contig of 55264 bp in length 109029; contig of 55262 bp in length 109029; contig of 55262 bp in length 109030 109129; gap of unknown length 109030 109129; contig of 55262 bp in length 109130 164411; contig of 55282 bp in length
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Center: Whitehead Institute/MIT Center for Genome Research
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164511: gap of unknown length
193274: contig of 28763 bp in length.
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/clone_lib="RPCI-24 Male Mouse BAC"

    193274
    organism="Mus musculus"

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/db_xref="taxon:10090"
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Rattus norvegicus clone CH230-159N5, WORKING DRAFT SEQUENCE.
AC126519
AC126519.3 GI:25138273
HTG; HTGS_PRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                       Gaps
  Length 193274;
                                                       18;
                                                    Indels
                                                       22;
Score 689.8; DB 2,
Pred. No. 5.9e-133,
0; Mismatches 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127421 GGAGCTCCTGCGTTTCCAGGT 127441
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     54.0%;
95.0%;
                  Best Local Similarity ....
Matches 761; Conservative
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Daylot Fraza, notecon, 10, 100, 000.

Bay Genome Sequencing Consortium.

Direct Submission

Direct Submission

Lo 2020/00/2002) Human Genome Sequencing Center, Department Submitted (20-NOV-2002) Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 20, 2002 this sequence version replaced gi:23195602.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence
1 (Dases 1 to 23539)

12 Allen, C., Allen, H., Alsbrooks, S., Anin, A., Angulano, D., Anguarp, D. Marzie, Merzker, N.Lee., Abramzon, S., Andams, C., Allen, H., Alsbrooks, S., Anin, A., Angulano, D., Mayalabboni, V., Angulan, A., Ayodaji, M., Badan, H., Banhmed, F., Balani, D., Bandarmanike, D., Barber, M., Barnstad, M., Banhmed, F., Biswalo, K., Calderon, E., Gardenag, V., Carer, K., Canderon, E., Gardenag, V., Carer, K., Canderon, E., Carderon, E., Carderag, V., Carer, K., Canderon, E., Carderag, C., Cokreil, R., Cay, C., Coyle, M., Cree, M., Suyar, K., Canderon, E., Davis, C., Burch, P., Burrel, K., Duyar, R., Carer, M., Duyar, K., Davis, C., Davy, Cartoll, M., Davis, R., Davis, R., Davy, C., Paras, C., M., Garler, R., Cartoll, M., Davis, R., Davis, C., Maris, M., Dutan, R., Davis, M., Plagan, N., Flags, M., Guerer, M., Gavez, M., Fraser, C., M., Garler, R., Galls, M., Guerer, M., Gavez, M., Harland, M., Hanli, C., Hamilton, C., Hamilton, K., Harvey, Y., Havlak, P., Haland, M., Hamil, C., Hamilton, C., Hamilton, K., Harvey, M., Haland, M., Hamil, C., Hamilton, C., Hamilton, M., Halland, M., Hanli, S., Hune, M., Idhand, D., Jang, H., Kably, S., Kally, S., Kally, S., Kally, S., Kally, S., Kally, M., Martin, M., Mangum, L., Lolbow, H., Lebow, H., Lewan, J., Luta, J., Liu, J., Liu, W., Liu, Y., London, P., Longacre, S., Lopez, J., Liu, J., Liu, W., Liu, Y., London, P., Mortis, S., Maridas, M., Martin, M., Mangum, P., Martin, K., Martin, R., Mahlud, M., Martin, M., Mangum, P., Martin, K., Martin, S., Righ, R., Raily, M., Sterker, M., Relly, R., Watter, M., Relly, R., Watter, M., Relly, R., Watter, M., Relly, R., Watter, M., Relly, R., Marten, M., Relly, R., Watter, M., Sterker, M., Sharter, M., 
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Direct Submission

Direct Submission

Direct Submission

Direct Submission

Direct Submission

Direct Submission

Department

Sequencing Center, Department

of Molecular and Human Genetics, Baylor College of Medicine, One

Baylor Plaza, Houston, TX 77030, USA
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Unpublished
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AUTHORS
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* NOTE: Estimated insert size may differ from sequence length

* NoTE: Estimated insert size may differ from sequence length

* NoTE: This is a 'working draft' sequence. It currently

* consists of I contigs. Gaps between the contigs

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

I 235390 contig of 235390 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
                                                                                                                                                                                                           Center project name: GZCZ
Center clone name: GZZZ
Center clone name: GZZZ
Assembly program: Phrap; version 0.990329
Consensus quality: 216235 bases at least Q40
Consensus quality: 216057 bases at least Q30
Consensus quality: 219408 bases at least Q20
Estimated insert size: 221324; sum-of-contigs estimation
Quality coverage: 7x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63 TCCTTATCCGC---AGGCCACCACCAGGGATGGCTGGAGGTTCGGAGCCAGGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 GGGGGGGGAGGCGCGACCCATGTTCCCGGCGAGCACGTTCCACCCTGCCCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 628; DB 2; L
Pred. No. 4.1e-120;
0; Mismatches 90;
                                                                                                                                                        Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                              Center: Baylor College of Medicine
Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .235390
/organism="Rattus norvegicus"
/mol_type="genomic_DNA"
/db_rref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .228048)
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232121. .235390
/note="wgs_end_extension
clone_end:Sp6"
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clone_end:T7"
complement(4755..38027)
/note="clone_boundary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          end_sequence:BH321013"
complement(227221. .228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="clone_boundary
clone_end:Sp6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="CH230-159N5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49.2%;
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Best Local Si
Matches 708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
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                                                                                                                                                                                                                                                  27049 CGCCCTGTACTCGCCCGTGACCTTCGGTGGCCTCTCCTCCTCGCTGGAGGTTGCGGGGA 26990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26989 CAGGCAGACGCCCACGAAGGGAGAGGGGGAGACCGGCACCCACGGGACCCGGGAACCCGA 26930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26929 GCCGGGAGAGGTGGCAGTGATGAAAGCAGTCCCCCAGCCGCAGAGCGAGGAGGGCGACGT 26870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26869 CCAGGCTGAAGGGCAGGATG---GCCAGGAGCAGCCACCGCGGGAGGACCCGGACATGT 26813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AC125993 237695 bp DNA linear HTG 10-MAY-2003
Rattus norvegicus clone CH230-74L11, *** SEQUENCING IN PROGRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   539
                                                                                                                                                                                                               300 ACTCGGGCGCCGCACGCTGCAGCCTGCAGGTGCCGAGCCCAGCCCCGACGCCCGGATCGGG 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                           420 AGCCCCGTTCTCGTCCGTGACCTTCTGTGGCCTCTCCTCCTCACTGGAGGTTGCGGGAGG 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540 GCCGAGAGAGGCGCGCGAGGAAAGCGGTCCCCCAGCCGCAAGCGAAGCGAGGCGATGT 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCCGATGCAGTCTGAGCCTGGGAGCGAGCCATGTCCTGCCGCAGAGATGGCTCA 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720 GGACCCCGGTGATTCGGATGCCCCTCGAGACCAGGCCTCCCCCCAAAGCACGGAGCAGGA 779
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                       TTCCTGTCAACCCCGTGGCCACGCCGGCGCGCGGAGATCCCCGCGATCCTGGCAGACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGCAGACACCCACGAAGGGAGAGGGGAGCCCGGCATCCTCGGGGACCCGGGAACCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600 TCAGGCTGCAGGCCAGGCCGGTGGGAGCAGCCACCACCACCGGAGGACCGGAACAGTGT
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HTG, HTGS PHASB2, HTGS DRAFT, HTGS_ENRICHED.
Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26692 CAAGGAGCCCTGCGTTTCCAGGT 26669
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AC125993/c
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KEYWORDS
SOURCE
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Gebregeorgis, E., Geer, K., Gill, R., Grady, M., Guerra, W., Gunaratne, P., Haaland, W., Hamil, C., Hamilton, C., Hamilton, K., Havdak, P., Hawes, A., Henderson, N., Hernandez, J., Harnandez, H., Harnandez, S., Hadun, S.L., Hodgson, A., Hernandez, J., Hernandez, S., Hulyk, S., Hume, J., Idgbird, D., Jackson, A., Jacob, L., Jiang, H., Johnson, B., Johnson, R., Jolivet, A., Karpathy, S., Kelly, S., Kelly, S., Kally, E., Khan, Z., King, L., Kovar, C., Liu, J., Liu, Y., London, P., Longarce, S., Lopez, J., Liu, J., Liu, Y., London, P., Longarce, S., Lopez, J., Liu, J., Liu, M., Liu, Y., London, P., Longarce, S., Lopez, J., Liu, J., Liu, M., Malladartne, M., Mahmoud, M., Malloy, K., Mangum, A., Mangum, B., Mapta, P., Martin, K., Martin, R., Martinez, E., Morgan, M., Martin, K., Martin, K., Martin, R., Martin, K., Martin, K., Martin, R., Martin, C., Mangum, A., Mangum, B., Martin, K., Martin, R., Pals, F., Pals, R., Reithy, M., Renity, R., Reuter, M., Reof, Y., Reuter, M., Renker, R., Reiter, C. D., Sherty, J., Sheatty, J., Sheatty, J., Sheatty, J., Sheatty, J., Sheatty, J., Sheatty, J., Sheaten, R., Strong, R., Strong, R., Strong, R., Strong, R., Strong, R., Strong, R., Thomas, M., Thogey, A., Trejos, Z., Usmani, K., Wajlet, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, U., Yu, Waish, R., Wajlet, R., Wajlet, R., Waish, R., Waith, R., Wu, J., Yakub, S., Yen, J., Yoon, U., Yu, Waish, R., Waish, R., Waith, R., Waith, R., Waith, R., Waith, R., Waith
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On May 10, 2003 this sequence version replaced gi:23096451.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, and separated by sized gaps filled with Ns to the estimated size. The sequence way extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Worley, K.C.
Direct Submission
Submitted (O2-JUL-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 237695)
Rat Genome Sequencing Consortium.
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Submitted (10-MAY-2003) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, T77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          040
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------ Summary Statistics
Assembly program: Atlas 3.0;
Consensus quality: 239641 bases at least (
Consensus quality: 231444 bases at least (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center: Baylor College of Medicine
Center code: BCM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Center
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Unpublished
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1 (bases 1 to 26213)

Ruzny, D. Marie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J.,
Allen, H., Alebrooks, S., Amin, A., Anguiano, D.,
Allen, C., Allen, H., Alebrooks, S., Amin, A., Anguiano, D.,
Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H.,
Baldwin, D., Bandaranike, D., Barber, M., Barstead, M., Benahmed, F.,
Bladwin, D., Bandaranike, D., Barber, M., Elyth, P., Brown, M.,
Bryant, N., Blabry, C., Burch, P., Burrell, K., Calderon, E.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, K., Chen, K., Chen, K.,
Davila, M.L., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, Davila, M.L., Davis, M., Eugene, C., Evans, C.A., Divya, K.,
Bagan, A., Escotto, M., Eugene, C., Evans, C.A., Carter, T., Fan, G.
Fernandez, S., Finley, M., Flagg, N., Forbes, L., Foster, M., Gebregoorgis, E., Geer, K., Gall, R., Garcia, A., Garrer, T., Gebregoorgis, E., Geer, K., Gall, R., Garcia, A., Garrer, M., Gebregoorgis, E., Geer, K., Gall, R., Garcia, A., Garrer, M., Gebregoorgis, E., Geer, K., Gall, R., Garcia, A., Garrer, M., Gabrene, P., Haaland, W., Hanil, C., Hamilton, K., Harlak, P., Hawelak, S., Hulyk, S
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262139 bp DNA linear HTG 20-NOV-2002
Rattus norvegicus clone CH230-69F8, *** SEQUENCING IN PROGRESS ***, 4 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              719
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720 GGACCCCCGGGATGCCCCTCGAGACCAGGCCTCCCCGCAAAGCACGGAGCAGGA
                                                     GGCGGCGATGCAGTCTGAGCCTGGGAGCGAGGAGCCATGTCCTGCCGCAGAGATGGCTCA
                                                                                                                                                                                                                                                                                                                                                       600 TCAGGCTGCAGGCCGGGTGGGAGCAGCAGCCACCACCGGAGGACCGGAACAGTGT
CAGGCAGACACCCCACGAAGGGAGAGGGGAAGCCCGGCATCCTCGGGGACCCGGGAACCGGA
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AC127083.3 GI:24635317
HTG; HTGS_PHASE1; HTGS_ENRICHED.
Rattus norvegicus (Norway rat)
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VERSION
KEYWORDS
SOURCE
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                                                                                                                                                                                            NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: flis is a "vorking draft' sequence. It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

This sequence will be replaced.
              Consensus quality: 212679 bases at least Q20
Estimated insert size: 242796; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  by the finished sequence as soon as it is available and the accession number will be preserved.

1 237695: contig of 237695 bp in length.
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Pred. No. 4.1e-120;
0; Mismatches 90; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-74111"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             end sequence: BH339391"
complement (234275. .235086)
/note="clone_boundary
clone_end: Spē
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clone end:T7"
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/note="clone_boundary
clone_end:T7
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end_sequence:BH339393"
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1. .237695
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Best Local Similarity 88.1%;
Matches 708; Conservative 0
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236614 GGACCCCAGTGACGTGGCTGCCTCTAGAGACCGGGCCTCCCCACAGAGCACTGAGCAGGA 236555
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172942. 174088
/note="wgs_contig"
202428. .204028
                                                                                                                                                                                                                                                                                                                                                                  /note="wgs_contig"
                                                                                                                                                                                                                                                                                                                                                                                                                                              49.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 88.1
Matches 708; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission

Submitted (120-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 6, 2002 this sequence version replaced gi:23269432.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the fature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold', individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome table.
Reilly, B. Reilly, M. Ren, Y., Reuter, M.; Richards, S., Riggs, F. Rives, C., Rodkey, T., Rojas, A., Rose, M., Rose, R., Ruiz, S. J., Sanders, W., Savery, G., Scherer, S., Scott, G., Shatsman, S., Shen, H., Shetty, J., Shvartsbern, R., Sisson, I., Sitter, C.D., Smajs, D., Sreod, A., Sodergren, E., Song, X.-Z., Sorelle, R., Sosa, J., Taylor, Steinle, M., Strong, R., Sutton, A., Svatek, A., Tabor, P., Taylor, C., Valas, R., Uthomas, S., Tingey, A., Trejos, Z., Usmani, K., Valas, R., Vera, V., Villasana, D., Waldron, L., Walker, B., Wang, J., Wang, Q., Wang, S., Warren, R., Wei, K., Whilson, R., Wilson, R., Walczyk, R., Wooden, H., Worley, K., Wright, D., Wright, R., Wull, Y., Yakub, S., Yen, J., Yoon, V., Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Weinstock, G. and Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a "working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (13-UTL-2002) Human Genome Sequencing Center, Department
Submitted (13-UTL-2002) Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
3 (Dases 1 to 262139)
Rat Genome Sequencing Consortium.
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4662: gap of unknown length
259056: contig of 254394 bp in length
259156: gap of unknown length
260299: contig of 1143 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
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REFERENCE AUTHORS TITLE JOURNAL

COMMENT

REFERENCE AUTHORS TITLE JOURNAL

TITLE JOURNAL

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237152
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9
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0300 260399: gap of unknown length
0400 262139: contig of 1740 bp in length.
Location/Qualifiers
1. 262139
/organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db xref="taxon:10116"
/clone="CH230-69F8"
36039 .38659
108494. .109772
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0; Mismatches 90; Indels
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N. Submitted (13-MAR-2004) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                            AC108848 220894 bp DNA linear HTG 13-MAR-2004 Mus musculus chromosome 5 clone RP23-300K5 map 5, WORKING DRAFT SEQUENCE, 40 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 220894)
Birran, Bu., Nusbaum, C. and Lander, E. Mus musculus chromosome 5, clone RP23-300K5
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                                                                                                                                                                                                                                                                                                                                                                                 AC108848
AC108848.3 GI:45430126
HTG; HTGS PHASEJ; HTGS DRAFT; HTGS_FULLTOP.
MNB musculus (house mouse)
                                                236554 CAAGGAGCGCCTGCGTTTCCAGGT 236531
780 CAAGGAGCGCCTGCGTTTCCAGTT 803
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                                                                                           Center: Whitehead Institute/ MIT Center for Genome Residente: Whitehead Institute/ MIT Center for Genome Residents site: http://www-seq.wi.mit.edu
Web site: http://www-seq.wi.mit.edu
Centact: sequence submissions@genome.wi.mit.edu
Centact: sequence submissions@genome.wi.mit.edu
Centact project Information
Center project name: 121014
Center project name: 121014
Center project name: 1200 K 5
Center project name: 1200 B 5
Cen
                           Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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Homo sapiens zygote arrest 1 (ZAR1) mRNA, complete cds.
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Wu, X., Viveiros, M.M., Eppig, J.J., Bai, Y., Fitzpatrick, S.L. and Matzuk, M.M.
Zygote arrest I (Zarl) is a novel maternal-effect gene critical for the occyte-to-embryo transition
Nat. Genet. 33 (2), 187-191 (2003)
                                                                                    27639 ACCGGGCCCCCCCTCCTTCCTCCCCGGCTACAGACAGCTCATGGCCGCGGAGTACGTCGA
                                                                                                                                                     27339 GACGCCCGGTCGGGTTCCTGTCAACCCCCGTGGCCACGCCGGGGGCCCGGGAATCCCCGCGA
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/clone lb="RPCI-23 Female Mouse BAC"
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/note="asssembly_fragment"
3425. .16586
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16687. .27361
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note="assembly_fragment"
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56362. .57961
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/mol type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="5"
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Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
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18.7%; Score 239.2; DB 6
21 Similarity 86.2%; Pred. No. 2.9e-39;
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PE Corporation (NY) (HS)
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/product="xygote arrest 1"
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/protein_id="AAO24707.1"
/db xref="d1:27808692"
/translation="WAALGDBVLDGYVFPACPPCSYRYPYPAATKGKGAAGGSWQRG
/translation="WAALGDBVLDGYVFPACPPCSYRYPYPAATKGKGAAGGSWQRG
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SCDVAVQVSPRIDAAVGCSLGRRTLGRRADPBSPAGFGAGCTTGGGSFSQQPSRGL
EQGSPQWGAPRPRFPRTVAVYSPLALRRLTAFLEGPGPAAGEQRSGASDGERGPPPA
RLQGPEEGEWWTKAPRRPQSDDDGBAQAAVRASWEQPADGPELPPREAGGGERAPRS
ALRSPGQPPSAGRARDGGGRRAAVGGSPRSPELGKERLRFQFLEQKYGYYHCKD
CNIRWSAYVWCYGGTWYYFKQPCBTCQKSYNPYRVBDITCQSCKQTRCSCPVKLRH
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Wu,X., Bai,Y. and Matzuk,M.M.
Mu,X., Bai,Y. and Matzuk,M.M.
Submisted (04-bicon 2002) Pathology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
Location/Qualifiers
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                                                                                                                                                                                   /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/chromosome="4"
/map="4pl2"
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                                                                                                                                                                                                                                                                                                                         /gene="ZAR1"
1. .1275
/gene="ZAR1"
              12539046
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S:
Matches 708
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JOURNAL
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                                                          AUTHORS
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/product="rygote arrest 1"
/protein id="AAP37039.1"
/brotein id="AAP37039.1"
/tanslation="MATYCDEPUSYPYSSYNPYMGRYPRHRDAGWKXKSYLSHYGDT
SEAFSNOQRAQLKSILSQINPKLTPRILRKANTKDVAVQVNPKRDASVQCSIGPRTLLV
SKRELRRRKKLNPGPPGTPQKTEGSVRYPRTLAVYGSIAFRSYTSFLVETGKDRPAAE
AQAELPGEQPEQKGGENQAGESTNANLPEQRKPQSEDAQTAADAEGSKGKARVRPOF
LEQKYGYYHCRECNLEWRSAAVWCVQGTNKNYFRQFCRKCQKDFNPYRVEDITCHVCN
KARCACAETQRHVDPKRPHRQDLCGRCKGKRLSCDSTFSFKYIV"
                                                                                                                                                                                                                                    1095
                                                                                                                                                                                                                                                                                                                                                                                                                             AY283177 963 bp mRNA linear VRT 21-AUG-2003
Takifugu rubripes zygote arrest 1 (Zarl) mRNA, complete cds.
AY283177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Takifugu rubripes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
1 (bases 1 to 963)
Wu,X., Wang,P., Brown,C.A., Zilinski,C.A. and Matzuk,M.M.
Zygote arrest 1 (zarl) is an evolutionarily conserved gene expressed in vertebrate ovaries
Biol. Reprod. 69 (3), 861-867 (2003)
                                                                                                                        772
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                                                                                       975
                                                                                                                                                                                              832
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USA
                                        976 TAAAAGAACTAGATGCCTGCCCAGTCAGATTTCGCCACGTGGACCCTAAACGCCCCCA
                                                                                                                                                                                                                                1036 TCGGCAAGACTTGTGTGGGAGATGCAAGACAAACGCCTGTGCGACAGCACCTTCAG
                                                                                         CCGAGTGTGTGAGAAATCCTACAACCCTTACAGAGTGGAGGACATCACCTGTCAAAGTTG
                                                                                                                                                                                              773 caagcagacgagargcgcgrgrccrgrcaaacrgcgrcacgrrgaccccaagaggcccca
                                                                                                                                                                                                                                                                   GAGAGCGCCTATGTGTGTGTGTGCAGGCACCAGTAAGGTGTTACTTCAAACAGTTCTG
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Pred. No. 4.8e-30;
0; Mismatches 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .963
/organism="Takifugu rubripes"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (24-APR-2003) Pathology,
Baylor Plaza, Houston, TX 77030, U.
Location/Qualifiers
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/note="maternal factor"
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/db_xref="taxon:31033"
1. .963
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ilarity 75.4%;
Conservative 0
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Wu, X. and Matzuk, M.M.
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Best Local Simi
Matches 255;
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                    928
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ACCESSION
VERSION
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SOURCE
ORGANISM
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TITLE
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JOURNAL
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AY283177
LOCUS
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QlkailsQvnPnltPrlcrantrdvGvQvnPrQdasvQcslGPrtllrrrPgalrkPP
PrQGSPASTKTVRFPRTIAYSPVAAGRLAPPQDEGVNLEEKGEAYSEGSEGRGOE
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QETNKYYPRQFCRTQGSYNFYRVEDIMCQSCKQTRCACPVKLRHVDPKRPHRQDLCG
RCKGKRLSCDSTFSFKYII"
                                                                                                                        1034
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2 (Bases 1 to 1052)
Wu,X. and Matzuk,M.M.
Direct Submission
Submitted (24-APR-2003) Pathology, Baylor College of Medicine, One
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1 (base, 1 to 1052)

Wu,X., Wang,P., Brown,C.A., Zilinski,C.A. and Matzuk,M.M.
Zygote arrest 1 (zarl) is an evolutionarily conserved gene expressed in vertebrate ovaries
Biol. Reprod. 69 (3), 861-867 (2003)
TTCCAGTTCCTGGAGCAGAAGTACGGATATTATCACTGTAAGGACTGCAACATCCGCTGG
                                                   GCCGAGTGTGTGAGAAATCCTACAACCCTTACAGAGTGGAGGACATCACCTGTCAAAGTT
                                                                                                                        GTAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACCCTAAAACGCCCCC
                                                                                                                                           ATCGGCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCTGCGACAGCACCTTCA
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                                                                                                                                                                                                                                                                                                                                                                                            AY283176 1052 bp mRNA linear VRT 2
Xenopus laevis zygote arrest 1 (Zarl) mRNA, complete cds.
AY283176
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Pred. No. 2.5e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xenopus laevis (African clawed frog)
Xenopus laevis
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/organism="Xenopus laevis"
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/protein_id="AAP37038.1"
/db_xref="GI:30908935"
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Location/Qualifiers
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/note="maternal factor"
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/db_xref="taxon:8355"
                                                                                                                                                                                                                                                                 GCTTCAAATACATCATTTAG 1114
                                                                                                                                                                                                                                                                                    347 GCTTCAAATACATCATTTAG 366
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80.1%;
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Best Local S:
Matches 254
                                                                                                                                                         227
                                                                                                                                                                                             1035
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                  108
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KEYWORDS
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TITLE
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AUTHORS
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JOURNAL
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AY283176
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PUBMED
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Conservative
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Job time : 5541 secs
Matches 256;
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/product=12rygote arrest 1"
/product=12rygote arrest 1"
/protef="id=130908939"
/bc.xref="id=130908939"
/db.xref="id=130908939"
/db.xref="id=1309089"
/db.xref="
                                                                                                                                                                                                                                                                                                                                                                                                                                           1016 GTGGACCCTAAAACGCCCCCATCGGCAAGACTTGTGTGGGGAGATGCAAGGACAAACGCCTG 1075
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Submitted (24-APR-2003) Pathology, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
Location/Qualifiers
1. 1084
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                                                                                                                895
                                                                                                                                                                                                                                                                               804
                                                         626 AddecaAAGCGCGTGTCCGCTTCCAGTTTCTGGAACAGAAGTACGGCTACTATCACTGCA 685
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('ppriniformes; Cyprinidae; Danio.

Zygote arrest 1 (zarl) is an evolutionarily conserved gene arrest 1 (zarl) is an evolutionarily conserved gene biol. Reprod. 69 (3), 861-867 (2003)
                                                                                                          805 GACATCACATGTCACGTATGCAACAAGGCCCGCTGTGCCTGCGCAGAAACGCAGCGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGACAAGGAGCGCTGCGTTTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTGCA
                                                                                                                                                                    686 gacaariccaaccrecearicceaececeracerricerrecritedecerreaececeae
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Danio rerio zygote arrest 1 (zar1) mRNA, complete cds.
AY283178
AY283178.1 GI:30908938
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/mol_type="mRNA"
/db_xref="taxon:7955"
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/gene="zarl"
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Wu,X. and Matzuk,M.M.
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Query Match Best Local Similarity

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                           GCAGGACAAGGAGCGCCTGCGTTTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTG
Gaps
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 Mismatches
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5, 2005, 18:06:59

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Aad00294 Mouse ooc
Adj63191 Mouse zyg
Abz24589 Mouse ova
Adj63200 Rat zygot
Adj63200 Rat zygot
Adj63200 Rouse ova
Adj63201 Mouse zyg
Adj63175 Mouse zyg
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Adj63211 Zygote ar
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Adj63196 Zebrafish
Abz24592 Human ova
Adj63209 Zygote ar
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Adj63210 Zygote ar	Aax53491 Human ade	Ada71938 Rice gene	œ	Adi42217 Plant tra	Ado02720 Soybean o	Adq22939 Human sof	Aax53491 Human ade	Abz37562 Streptomy	Abz37516 Streptomy	Abz37515 Streptomy	Adi42224 Plant tra	Ado02727 Corn orth	Aav44436 Mycobacte	Aav64545 M. tuberc	Aaz19134 M. tuberc	Aaz19346 M. tuberc	Abl66291 Lung canc	Adpl3447 Renal cel	Aas94858 Human DNA	Adm31027 Human cal	Adm31025 Human cal	Aag84658 Human neu	Aav42686 DNA encod
ADJ63210	AAX53491	ADA71938	ADA69587	ADI42217	AD002720	ADQ22939	AAX53491	ABZ37562	ABZ37516	AB237515	ADI42224	AD002727	AAV44436	AAV64545	AAZ19134	AAZ19346	ABL66291	ADP13447	AAS94858	ADM31027	ADM31025	AAQ84658	AAV42686
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72	58.8	57.8	54.2	54.2	54.2	54.2	52	51.6	51.6	51.6	50.2	50.2	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49	49	49	49
22	23	24	25	26	27	28	c 29	30	c 31	32		c 34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

BP

AAD00294 standard; cDNA; 1276

RESULT 1 AAD00294

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Oocyte-specific; ovary; O1-180; mouse; gynaecological; treatment; screen; cell proliferative disorder; cell degenerative disorder; contraceptive; modulator; signalling pathway; human infertility; cancer; ovulation; ss.
                                                                                                                                                                                                                                                                                                                                                   O1-180, O1-184 and O1-236 polypeptides and nucleic acids encoding them, useful for evaluating potential contraceptives to block ovulation in a reversible manner.
                                                                                                                                                               "Mouse oocyte-specific protein, 01-180"
                                          Mouse oocyte-specific 01-180 cDNA clone.
                                                                                                                              Location/Qualifiers
28. .1113
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                    05-SEP-2000 (first entry)
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The present sequence is the cDNA encoding the mouse oocyte-specific protein 01-180, expressed in the oocytes of primary (one-layer) preantral

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follicles through ovulation. It provides in vitro and in vivo reagents for studying ovarian development and function. This sequence has ynaecological and contraceptive activity. Agents which modulate 01-180, 01-184 and 01-236 may be used to treat cell proliferative or degenerative disorders, associated with abnormal expression of these ovary specific sequence can be used as reagents to evaluate potential contraceptives, to block ovulation in a reversible manner. It is also used to screen for genetic mutations in signalling pathways, that are associated with some forms of human infertility or gynaecological
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Matches 1276; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200 TCTTCATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse zygote arrest 1 (Zarl) protein coding sequence
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17-BC-2002; 2002US-043165P.
13-JAN-2003; 2003US-0439781P.
23-JAN-2003; 2003US-0442164P.
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                                                                                                                       CCTGTCAAAGTTGTAAAAGAACTAGATGTGCCTGCCCCAGTCAGACTTCGCCACGTGGACC
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       CAAAATCCGGTGGGAGAGCGCCTATGTGTGTGTGTGTGCAGGGCACCAGTAAGGTGTTACT
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/product= "Murine O1-180"
/transl_except= (pos:182. .184,aa:Ser)
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                                                              specific (also known as zygote arrest 1 - Zarl) proteins and nucleoplasmin (Npm2) proteins. The DNA and protein sequences of the invention are useful for inhibiting or enhancing early embryogenesis by disturbing the maternal genome. The DNA and protein sequences are also useful for screening mutations in components of those signalling pathways that are associated with some forms of human infertility or gynaecological cancers. The present DNA sequence encodes a Zarl protein.
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                                                                                                                                                                                                                                                      Sequence 1260 BP; 261 A; 390 C; 395 G; 214 T; 0 U; 0 Other;
NO 28; 219pp; English.
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Matches 1257; Conservative
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17-SEP-2002; 2002US-0411262P.
17-BC-2002; 2002US-0434165P.
13-JAN-2003; 2003US-0439781P.
23-JAN-2003; 2003US-0442164P.
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                   The present sequence is that of murine ovary-specific O1-180 CDNA obtained from a mouse ovary CDNA library. O1-180 clones were initially identified in a subtractive hybridisation screen using ovaries from Gdf9 identified in a subtractive hybridisation screen using ovaries from Gdf9 knockout and wild-type mice. The O1-180 gene (see ABZ24590) on chromosome control of the invention provides ovary-specific and ocyte-specific and ocyte-specific control of subfertility. The invention provides ovary-specific and ocyte-specific control of control of the control of control control of control of control of control contro
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Pred. No. 2.4e-283;
0; Mismatches 8;
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Best Local Similarity 99.3%;
Matches 1250; Conservative
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GGGCTAATGGAATGGAACAAGTGAGCTTTCTCCCCTTTCACCTTTCCCAAATTC 1202 ovary-specific protein; zygote arrest 1; Zar1; nucleoplasmin; Npm2; embryogenesis; mutation screening; infertility; gynaecological cancer; ACAGCACCTTCAGCTTCAAATACATCATTTAGTGAGAGTCGAAAACGTTTCTGCTAGATG CTAAACGCCCCCATCGGCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCTGCG CAAAATCCGGTGGGAAGAGCGCCTATGTGTGTGTGTGTGCAGGGCACCAGTAAGGTGTTACT TCAAACAGTTCTGCCGAGTGTGTGAGAAATCCTACAACCCTTACAGAGTGGAGGACATCA CCTGTCAAAGTTCTAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACC GGAGCGCCTGCGTTTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTGCAAGGACTG TTCATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACAA CCCCGGTGATTCGGATGCCCTCGAGACCAGGCCTCCCCGCAAAGCACGGAGCAGGACAA Mouse zygote arrest 1 (Zarl) protein coding sequence

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                                                                                                                       GGAGCGCCTGCGTTTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTGCAAGGACTG
                                                                                                                                                                                                                                                                                                                   900 TCAAACAGTTCTGCCGAGTGTGTGAGAAATCCTACAACCCTTACAGAGTGGAGGACATCA
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                           CCCCGGTGATTCGGATGCCCCTCGAGACCAGGCCTCCCCGCAAAGCACGGACAAGAAAA
                                                                                                                                                                                                                     CAAAATCCGGTGGGAGAGCGCCTATGTGTGTGTGTGTGCAGGGCACCAGTAAGGTG-TACT
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                                                                                              GGAGCGCCTGCGTTTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTGCAAGGACTG
                                                                                                                                                                                          CAAAATCCGGTGGGAGAGCGCCTATGTGTGTGTGTGTGCAGGGCACCAGTAAGGTGTTACT
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13-JAN-2003;
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                                                                                                                                                                                                                               The invention comprises the amino acid and coding sequences of ovary-specific (also known as zygote arrest 1 - Zarl) proteins and nucleoplasmin (Npm2) proteins. The DNA and protein sequences of the invention are useful for inhibiting or enhancing early embryogenesis by disturbing the maternal genome. The DNA and protein sequences are also disturbing the material genome. The components of those signalling pathways that are associated with some forms of human infertility or greening muteroforms of human infertility or gynaecological cancers. The present DNA sequence encodes a Zarl protein.
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                                                         New isolated ovary-specific genes e.g. 01-180, 01-184 or 01-236, useful in inhibiting or enhancing early embryogenesis or treating cell proliferative or degenerative disorders which are mediated by 01-180, 01-184 or 01-236 proteins.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1258 BP; 261 A; 392 C; 392 G; 213 T; 0 U; 0 Other;
                                                                                                                                                                                  Disclosure; SEQ ID NO 1; 219pp; English
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2003-865579/80
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17-DEC-2002; 2002US-0434165P.
13-JAN-2003; 2003US-043781P.
23-JAN-2003; 2003US-0442164P.
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in inhibiting or enhancing early embryogenesis or treating cell
proliferative or degenerative disorders which are mediated by 01-180,
184 or 01-236 proteins.
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                                                                                                                                                                                                  Length 1280;
                                                                                                                                                                            Sequence 1280 BP; 264 A; 408 C; 396 G; 212 T; 0 U; 0 Other;
                                                                                                                                                                                                  Score 962.2; DB 10; Length
Pred. No. 1.1e-218;
0; Mismatches 143; Indels
                                            Claim 1; SEQ ID NO 37; 219pp; English.
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Best Local Similarity 87.7%;
Matches 1110; Conservative
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therapy; chromosome 5; gene; ds.
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Pred. No. 5e-180;
0; Mismatches 1; Indels
                                                                              Disclosure; Fig 19; 219pp; English.
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Best Local Similarity 99.9%;
Matches 800; Conservative
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subtractive hybridisation screening using ovaries from Gdf9 knockout mice and wild-type mice. Ol-180 cDMA (see AB224589) was then used to isolate the Ol-180 gene from a genomic library generated from mouse 1298vy strain. Loss of Ol-180 results in female infertility and subfertility.

The invention provides ovary-specific and occyte-specific murine and ruman Ol-180, Ol-184 and Ol-236 polymorleotides and polypeptides. These genes and their protein products appear to relate to various cell genes and their protein products appear to relate to various cell proliferative or degenerative disorders, especially those involving or infertility, such as germ line tumnours and granulosa cell tumnurs, or infertility, such as germ line tumnours and granulosa cell tumnurs, or infertility, such as germ line tumnours and granulosa cell tumnurs, or the ovary, which is associated with the expression of Ol-180, Ol-184 or Ol-236. It also provides a method for treating such disorders by using an agent which suppresses or enhances the respective activities of Ol-180, Ol-184 or Ol-236, and a method of screening for compounds that interact and/or modulate the expression or activity of the ovary-specific genes. These compounds are possible contraceptive or fertility enhancing agents.
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17-DEC-2002; 2002US-0434165P.
13-JAN-2003; 2003US-0439781P.
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The present sequence is that of a pseudogene isolated during the cloning CC of novel murine ovary-specific gene O1-180 (see AB224590). The major difference between the O1-180 gene and pseudogene is a 13-nucleotide gap in exon 1 of the pseudogene, which is expected to cause a frameshift and carly termination in exon 2 of the pseudogene. The sequences of exon 2 craffentical in the O1-180 gene and pseudogene. The sequences of exon 2 are identical in the O1-180 gene and pseudogene, and there are single by cutations in exons 3 and 4. The invention provides ovary-specific and cocyte-specific murine and human O1-180, O1-184 and O1-236 polynucleotides and polypeptides. These genes and their protein product polynucleotides and polypeptides. These genes and their protein products especially those involving ovarian tumours, such as germ line tumours and granulosa cell tumours, or infertility, such as premature ovarian compounds are provided. Modulators also have contraceptive and modulator compounds are provided. Modulators also have contraceptive correctives.
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                                                                                                                                                                 New ovary-specific-genes comprising 01-180 or 01-236, useful for decreasing conception or enhancing fertility, or for the preparation of composition for treating e.g. cancer.
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Pred. No. 5.9e-169;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ovary-specific protein; zygote arrest 1; Zar1; nucleoplasmin; Npm2; embryogenesis; mutation screening; infertility; gynaecological cancer; ds; mouse; murine.
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Pred. No. 5.9e-169;
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17-SBP-2002; 2002US-0411262P.
17-DEC-2002; 2002US-0434165P.
13-JAN-2003; 2002US-0439781P.
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17-DEC-2002; 2002US-0434165P.
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                                                                                                                                                                                                                                                                                                                                                                                                                           The invention comprises the amino acid and coding sequences of ovary-specific (also known as zygote arrest 1 - Zarl) proteins and mucleoplasmin (Mpm2) proteins. The DNA and protein sequences of the invention are useful for inhibiting or enhancing early embryogenesis by disturbing the maternal genome. The DNA and protein sequences are also useful for screening mutations in components of those signalling pathways that are associated with some forms of human infertility or gynaecological cancers. The present DNA sequence encodes a Zarl protein.
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                                                                                                                                                                                                                                                                                                                       New isolated ovary-specific genes e.g. O1-180, O1-184 or O1-236, useful in inhibiting or enhancing early embryogenesis or treating cell proliferative or degenerative disorders which are mediated by O1-180, O1-184 or O1-236 proteins.
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17-SEP-2002; 2002US-0411282P.
17-DEC-2002; 2002US-0434165P.
13-JAN-2003; 2003US-0439181P.
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 maternal genome. The DNA and protein sequences are also
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated ovary-specific genes e.g. Ol-180, Ol-184 or Ol-236, useful in inhibiting or enhancing early embryogenesis or treating cell proliferative or degenerative disorders which are mediated by Ol-180, Ol-184 or Ol-236 proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein; zygote arrest 1; Zarl; nucleoplasmin; Npm2; mutation screening; infertility; gynaecological cancer;
AGTITITGCAGAACTIGICAGAAGICITIAIAACCCITIACCGAGIGGAGGATAICACCIGIC
                                                                                                                                                                                                                                                                    AAAGTTGTAAACAAACGAGATGTTCCTGCCCAGTAAAACTTCGCCACGTGGACCCTAAAC
                                                                               <u>AAAGTTGTAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACCCTAAAC</u>
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Pred. No. 3.9e-55;
0; Mismatches 14; Indels 0;
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Score 205.8; DB 1 Pred. No. 7.7e-39; 0; Mismatches 62

16.1%; 80.1%;

Conservative

Similarity

DB 10; Length 1052;

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TTCCAGTTCTTAGAGCAGAAGTACGGCTACTATCACTGCAAGGACTGCAAAATCCGGTGG 594 TICCAGITICCIGGAGCAGAAGIACGGAIAITAICACIGIAAGGACTGCAACAICCGCIGG

653 915 712 772

916 CCGAGTGTGTGAGAAATCCTACAACCCTTACAGAGGAGGACATCACCTGTCAAAGTTG 975

GAGAGCGCCTATGTGTGTGTGTGCAGGCCACCAGTAAGGTGTTACTTCAAACAGTTCTG

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Seguence 1052 BP; 298 A; 228 C; 299 G; 227 T; 0 U; 0 Other;
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                                                                                                                                                           1145 GCTAATGGAATGGACAAGTGAGCTTTCTCCCCTCTTCACCTCTTCCCAAATTCTT 1204
                                                          1025 AAACGCCCCCATCGGCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCTGCGAC 1084
            TGTCAAAGTTGTAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACCCT 1024
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                                                                                                                         190 GCTAATGGAATGGACAAGTGAGCTTTCTCCCCTCTTCCCTTTCCCATTTCCAAATTCTT 249
                                  69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated ovary-specific genes e.g. Ol-180, Ol-184 or Ol-236, useful in inhibiting or enhanching early embryogenesis or treating cell proliferative or degenerative disorders which are mediated by Ol-180, Ol 184 or Ol-236 proteins.
                                                                                                                                                                                                           CATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                            ovary-specific protein; zygote arrest 1; Zar1; nucleoplasmin; Npm2; embryogenesis; mutation screening; infertility; gynaecological cancer;
                                                                          70 AAACGCCCCCATCGGCAAGACTTGTGTGGGGAGATGCAAGGACAAATGCTTGTCTGCGGGC
                         10 TITCAGAGITGIAAAAAAAACIAGAIGIGCCTGCCCAGICAGACITCGCCACGIGGACCCI
                                                                                                                                                                                                                         250 CATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACA 305
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17-SEP-2002, 2002US-0411264P.
17-DEC-2002, 2002US-0434165P.
13-JAN-2003, 2003US-0439781P.
23-JAN-2003, 2003US-0442164P.
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P-PSDB; ADJ63195.
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The invention comprises the amino acid and coding sequences of ovary-specific (also known as zygote arrest 1 - Zarl) proteins and mucleoplasmin (Npm2) proteins. The DNA and protein sequences of the invention are useful for inhibiting or enhancing early embryogenesis by disturbing the maternal genome. The DNA and protein sequences are also useful for screening mutations in components of those signalling pathways that are associated with some forms of human infertility or gynaecological cancers. The present DNA sequence encodes a Zarl protein.

Claim 1; SEQ ID NO 31; 219pp; English.

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1036 TCGGCAAGACTTGTGTGGGAGATGCAAGGACAAACGCCTGTCCTGCGACAGCACCTTCAG 1095
976 TAAAAGAACTAGATGTGCCTGCCCAGTCAGATTTCGCCACGTGGACCCTAAAAGGCCCCCA 1035
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Job time : 698 secs
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TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomic)
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                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-075-55-179
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US-08-233-305G-8
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Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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Maximum DB seq length: 200000000
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Sequence 44, Appl
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APPLICANT: Bilis, Steven
APPLICANT: Bilis, Steven
APPLICANT: Williams, Mark
APPLICANT: McTue, Ann
APPLICANT: Peldman, Daniel
TITLE OF INVENTION: Human Calcium Channel Compositions and
TITLE OF INVENTION: Methods
CORRESPONDENCE: 32
CORRESPONDENCE ADDRESS:
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CUTY: Chicago
STATE: 111inois
COUNTRY: U.S.A.
ZIP: 60603
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
CLASSIFICATION NUMBER: US/07/745,206A
FILING DATE: 19910815
CLASSIFICATION INFORMATION:
REFERENCE/DOCKET NUMBER: 51504
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION INFORMATION INFORMATION INFORMATION INFORMA
                            US-09-268-163-5

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US-09-268-163-5

US-08-103-840-3

US-08-469-569-163

US-08-469-569-163

US-08-469-569-163

US-08-469-660-163

US-08-469-660-163

US-08-470-335-163

US-08-735-021-163

US-08-734-664A-163

US-08-734-664A-163

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US-08-734-664A-163

US-08-471-295F-44
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Patent No. 5429921
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; GENERAL INFORMATION:
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.3392, 3336.3488, 3495.3539, 3543.3581, 3585 .3587, 3591.3626, 3630.3689, 3693.3737, 3744 .3746, 3750.4823, 4827.4841, 4845.5006, 5010 .5096, 5100.5306, 5310.5366, 5370.5465)

join(144..3164.

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US-08-212-463-14/c
| Sequence 14, Application US/08232463
| Sequence 14, Application US/08232463
| Patent No. 56/0367
| GENERAL INFORMATION:
| APPLICANT: SCHEIFLINGER, F. APPLICANT: FALKNER, F. G. |
| TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS |
| CORRESPONDENCE ADDRESS: |
| ADDRESSEE: FOLGY & LATCHER |
| ADDRESSEE |
| ADDRESSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Version #1.25
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COMPUTER READABLE FORM:

MEDIUM TYPE: Rloppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Ve.

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/232,463

FILING DATE:
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                                                                                                                                                                                                                                                                     MOLECULE TYPE: DNA (genomic) FEATURE:
                                             LENGTH: 5467 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
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Best Local Similarity 46.7'
Matches 171, Conservative
SEQUENCE CHARACTERISTICS
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APPLICANT: Williams, Mark
APPLICANT: Feldman, Daniel
APPLICANT: McCue, Ann
APPLICANT: Brenner, Robert
TITLE OF INVENTION: Human Calcium Channel Compositions and
TITLE OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Brown, Martin, Haller & McClain
Score 54; DB 1; Length 5467;
Pred. No. 0.00039;
0; Mismatches 195; Indels
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SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
APPLICATION NUMBER: US/08/311,363
FILING DATE:
APPLICATION NUMBER: US 07/745,206
FILING DATE: 15-AUG-1991
ATTORNEY/AGENT INFERMATION:
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1660 Union Street
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REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 6362-51506
TELECOMMUNICATION INFORMATION:
TELEFAX: (619)238-0999
TELEFAX: (619)238-092
INFORMATION FOR SEQ ID NO: 12:
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Patent No. 5876958
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CITY: San Diego
STATE: California
COUNTRY: USA
ZIP: 92101-2926
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPUTER: IBM PC COMPUTER: IBM PC COMP
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APPLICANT: Harpold, Michael
           Query Match
Best Local Similarity 46.7%;
Matches 171; Conservative
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join(144..3164, 3168..3245, 3249..3386, 3390
..3392, 3396..3488, 3495..3539, 3543..3581, 3388
..3587, 3591..3626, 3630..3689, 3693..3737, 3744
..3746, 3750..4823, 4827..4841, 4845..5006, 5010
..5096, 5100..5306, 5310..5366, 5370..5465)
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46.7%; Pred. No. 0.00039;
tive 0; Mismatches 195; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               585 CGAGGAGGGCGATGTTCAGGCTGCAGGCCAGGCCGGTGGGAGCAGCAGCACCACCACCACGGA 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   645 GGACCGGAACAGTGTGGCGGCGATGCAGTCTGAGCCTGGGAGCGAGGAGCCATGTCCTGC 704
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 4.2%; Score 53.2; DB 1; Length 7 Best Local Similarity 6.5%; Pred. No. 0.00072; Matches 25; Conservative 202; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S-08-456-200B-11
Sequence 11, Application US/08456200B
Patent No. 6229000
GENERAL INFORMATION:
APPLICANT: Franz, Jurgen; Weingartner, Bernhard;
APPLICANT: Unterbeck, Axel; Rae, Peter
TITLE OF INVENTION: TISSUE-SPECIFIC HUMAN NEURONAL
TITLE OF INVENTION: THEIR USE
                                                                                                                                                           30472/114 IMMU
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,313
FILING DATE: 26-406-1991
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-406-1991
ATTONNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 30472/114 IMM
TELECHONE: (703) 836-9300
TELEPHONE: (703) 683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 17
CORRESPONDENCE SADRESSS:
ADDRESSEE: SPRUNG HORN KRAMER & WOODS
STREET: 660 White Plains Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1028 AATTCTGTGAGCGTATGGCAAA 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           825 CTATCACTGCAAGGACTGCAAA 846
                                                                                                                                                                                                                        TELEX: 899149
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 7218 base pairs
                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
IMMEDIATE SOURCE:
CLONE: pTZgpt-F18
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STATE: New York
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1636 GAGGCCCCGAAGGCCGGAGGCGGGAGCCCGGTGCCGGGAGGAGCGCCGCGCGCCGCAC 1695
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              370 CCCCGTGGCCACGCCGGCGCCGGGAGATCCCCGCGATCCTGGCAGACCGTAGCCCCGTTC
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Pred. No. 0.0029;
0; Mismatches 215; Indels 3
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ZIP: 10591-5144
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: 8torage
COMPUTER: NEC Powermate SX/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/456,200B
FILING DATE: 31-MAY-1995
CLASSPICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/094,712
FILING DATE: 19-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/658,278
FILING DATE: 26-MAR-1992
PRIOR APPLICATION NUMBER: 08/064,778
FILING DATE: 19-MAY-1993
PRIOR APPLICATION NUMBER: 19-MAY-1993
PRIOR APPLICATION NUMBER: 08/064,778
FILING DATE: 19-MAY-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: DE 41 10 785
FILLING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Kurt G. Briscoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33,141
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                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.0%;
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TYPE: Nucleotide
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (914) 332-1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 48.0
Matches 201; Conservative
                                                                                                                                                                                                                                         COMPUTER: NEC Powerma
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: Linear
MOLECULE TYPE: CDNA
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US-08-456-200B-11
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TUBERCULOSIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          637
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299 ceschacedecescahchaedenandeleecanedecescaecededescanheeceenangen
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                     Campos-Neto, Antonia
Houghton, Raymond
Houghtok, Thomas S.
Twardzik, Daniel R.
Lodes, Michael J.
Hendrickson, Ronald C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 49.6; DB 4; Length 4
Pred. No. 0.0016;
0; Mismatches 134; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/072,596
FILING DATE: 05-WAY-1998
                                                                                                                                                                                                                                                                                      3: SEED and BERRY LLP
6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 31,392
REPREMENCE/DOCKET NUMBER: 210121.417C9
TELECOMINICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                698 GTCCTGCCGCAGAGATGGCTCAGG 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359 CGCCGCCGACGCTGCACTCTCAGG 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 179, Application US/09072967
Patent No. 6592877
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
APPLICANT: Skeiky, Yasir A.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 9104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
Davin C
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 400 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 3.9
Best Local Similarity 49.2
Matches 130; Conservative
                                                                                                                                                                      APPLICANT: Hendrickson,
TITLE OF INVENTION: COMP
NUMBER OF SEQUENCES: 350
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BE
                                                                                                                                                                                                                                                                                                                                                CITY: Seattle
STATE: Washington
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
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TELEFAX: (2
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TOPOLOGY:
US-09-072-596-174
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                                                   APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                              APPLICANT: Reed, Steven G.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THE PREVENTION AND NUMBER OF SEQUENCES. 241
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 3.9%; Score 49.6; DB 3; Length 400; Best Local Similarity 49.2%; Pred. No. 0.0016; Matches 130; Conservative 0; Mismatches 134; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA.

APPLICATION NUMBER: US/09/056,556
FILING DATE: 07-APR-1998
                                                                                                                                                                                                                                                                                                                       SEED and BERRY LLP 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 07-APR-1998
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.457
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    698 GICCIGCCGCAGAGAIGGCICAGG 721
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Patent No. 6458366
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                      Sequence 179, Application US/09056556 Patent No. 6350456 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 179: SEQUENCE CHARACTERISTICS: LENGTH: 400 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 98104-7092
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                 Seattle
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US-09-072-596-174
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                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                       US-09-056-556-179
                                                                                                                                                                                                                                                                                                                                                                                 CITY: S
STATE:
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      RESULT 5
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APPLICANT: Feldman, Daniel
APPLICANT: McCue, Ann
APPLICANT: McCue, Ann
APPLICANT: Brenner, Robert
ITILE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                  Brown, Martin, Haller & McClain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 07/482,384
FILING DATE: 20-FEB-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/603,751
FILING DATE: 04-APR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US89/01408
FILING DATE: 04-APR-1989
PRIOR APPLICATION NUMBER: US 07/176,899
FILING DATE: 04-APR-1988
APPLICATION NUMBER: US 07/176,899
FILING DATE: 04-APR-1988
APPLICATION NUMBER: US 07/176,899
FILING DATE: 04-APR-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: BOSS
SOFTWARE:
SOFTWARE: 1885GQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,543A
FILING DATE: May 31, 1995
FRIOR APPLICATION NUMBER: 08/23,305
FILING DATE: April 4, 1994
FRIOR APPLICATION NUMBER: 07/868,354
FILING DATE: April 10, 1992
FRIOR APPLICATION NUMBER: US 07/745,206
FILING DATE: 15-AUG-1991
PRIOR APPLICATION NUMBER: US 07/620,250
FILING DATE: 30-NOV-1990
PRIOR APPLICATION NUMBER: US 07/620,250
FRIOR APPLICATION NUMBER: US 07/620,250
FRIOR APPLICATION NUMBER: US 07/482,384
APPLICATION NUMBER: US 07/482,384
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REFERENCE/DOCKET NUMBER: 6362-52517
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                       1660 Union Street
Williams, Mark
Feldman, Daniel
McCue, Ann
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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6855..7175
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STRANDEDNESS: double
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                                                                                                                                                                                                                                                                                                                                                       CITY: San Diego
STATE: California
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; LOCATION:
US-08-455-543A-8
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                                                                                                                                                                                                                                                                                                                              STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           518 CCTCGGGGACCCGGGAACCGGAGCCGAGAGAGGTGGCCGCGAGGAAGCGGTCCCCCAGC 577
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCGGAGGACCGGAACAGTGTGGCGGCGATGCAGTCTGAGCCTGGGAGCGAGGCCAT 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                             APPLICANT: Campos-Neto, Antonio
APPLICANT: Houghton, Raymond
APPLICANT: Houghton, Raymond
APPLICANT: Twardzik, Thomas S.
APPLICANT: Twardzik, Daniel R.
APPLICANT: Lodes, Michael J.
APPLICANT: Hendrickson, Ronald C.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR IMMUNOTHERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF TUBERCULOSIS
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 3.9%; Score 49.6; DB 4; Length 400; Best Local Similarity 49.2%; Pred. No. 0.0016; Matches 130; Conservative 0; Mismatches 134; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NATA:
APPLICATION NUMBER: US/09/072,967
FILING DATE: 05-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                     E: SEED and BERRY LLP
6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.411C9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     698 GTCCTGCCGCAGAGATGGCTCAGG 721
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Patent No. 5792846
GENERAL INFORMATION:
APPLICANT: Harpold, Michael
APPLICANT: Ellis, Steven
   Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (206) 682-631
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 400 base pairs
TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TOPOLOGY:
US-09-072-967-179
                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Sea
STATE: Wa
COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
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3.8%; Score 49; DB 1; Length 7175; 48.0%; Pred. No. 0.0091;

Query Match Best Local Similarity

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3: Brown, Martin, Haller & McClain
1660 Union Street
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MOLECULE TYPE: DNA (genomic)
FRATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: HUMAN C?
TITLE OF INVENTION: METHODS
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.8%;
                                                                                                                            7175 base pairs
                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 48.0
Matches 201; Conservative
                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: double
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                                                                                                                                                                                                                                                                                                                                                                                                                                       144..6857
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California
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ZIP: 92101-2926
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-08-223-305C-8
                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
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LOCATION:
US-08-193-078B-8
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                                                                                                                       LENGTH:
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                                                                                                                                                                                                                                                                      310 CGCACGCTGCAGCCTGCAGGGTGCCGAGCCAGCCCCGACGCCCGATCGGGTTCCTGTCAA
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APPLICANT: Feldman, Daniel
APPLICANT: McCue, Ann
McCue, Ann
APPLICANT: Brenner, Robert
TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND
TITLE OF INVENTION: METHODS
CORRESPONDENCE: 29
CORRESPONDENCE ADDRESS:
Mismatches 215; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/193,078B
FILING DATE: CEB-1994
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: BROWN, MARTIN, HALLER & MCCLAIN
STREET: 1660 UNION STREET
CITY: SAN DIEGO
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FILING DATE: 15-AUG-1991
ATTORNEY, AGENT INFORMATION:
NAME: Seidman, Stephanie L.
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 6362-53607
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-238-0999
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/868,354
FILING DATE: 10-APPL:1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/745,206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PC-DOS/MS-DOS
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IBM PC compatible
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Ellis, Steven
Williams, Mark
Feldman, Daniel
    Conservative
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MEDIUM TYPE: Floppy
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         Matches
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610 GGGCAGGCCGGGTGGGAGCAGCCACCACCGGAGGACCGGAACAGTGTGGCGGCGAT 668
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                                                                                                                                                         2751 GAGGCCCCGAAGGCGGAGAGCGGGAGCCCGGTGCCCGGGAGGAGCGGCCGCGCCGCAC
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                                                                                                         250 GACGCTGCGGTGCAGGTGAACCCGCGCGCGCGCCTCGGTGCTGCTTCACTCGGGCGC
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                                                Gaps
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Sequence 8, Application US/08223305C
Patent No. 5851824
GENERAL INFORMATION:
APPLICANT: Harpold, Michael
APPLICANT: Fillis, Steven
APPLICANT: Fillis, Mark
APPLICANT: Foldman, Daniel
APPLICANT: McCue, Ann
APPLICANT: Branner, Robert
TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND
Length 7175;
Score 49; DB 2; Length 717
Pred. No. 0.0091;
0; Mismatches 215; Indels
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2810

309

2867

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490 CCCACGAAGGGAGAGGGGAGCCCGGCATCCTCGGGGACCCGGGAACCGGAGCCGAGAGAG 549
                                                                                                                     GTGGCCGCGAGGAAAGCGGTCCCCCAGCCGCGAAGCGAGGGGGGCGATGTTCAGGCTGCA 609
                                                                                                                                                                                                                                                           3108 CACGAGGCTGTGGAGAAGAGACCACGGAGAAGGAGCCACGGAGAAGGAGGTGAGAT 3166
                                                                                                                                                                                                             610 GGGCAGGCCGGGTGGGAGCAGCACCACCGGAGGACCGGAACAGTGTGGCGGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Harpold, Michael
APPLICANT: Ellis, Steven
APPLICANT: Ellis, Steven
APPLICANT: Williams, Mark
APPLICANT: McCue, Ann
APPLICANT: Brenner, Robert
TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND
TITLE OF INVENTION: METHODS
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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STREET: 1660 Union Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/149,097D
FILING DATE: 05-NOV-1993
CLIASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/105,536
FILING DATE: 11-AUG-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: W0 PCT/US92/06903
FILING DATE: 14-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,231
FILING DATE: 13-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,231
FILING DATE: 13-JUL-1992
PRIOR APPLICATION NUMBER: US 07/968,354
APPLICATION NUMBER: US 07/968,354
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04-APR-1989
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/745,206
FILING DATE: 15-AUG-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/620,250
FILING DATE: 30-NOV-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/482,384
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FILING DATE: 20-FEB-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/603,751
FILING DATE: 04-APR-1989
PRIOR APPLICATION DATA:
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COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                         Sequence 8, Application US/08149097D Patent No. 5874236 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 04-APR-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 San Diego
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                        US-08-149-097D-8
                                                                                                                     250
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Pred. No. 0.0091;
0; Mismatches 215; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (P519739)
                                                             OPERATING SYSTEM: DOS

SOFTWARE: FastESEQ Version 1.5

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/23,305C
FILING DATE: April 4, 1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/666,354
FILING DATE: April 10, 1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/745,206
FILING DATE: 15-AUG-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/620,250
FILING DATE: 20-FEB-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/63,751
FILING DATE: 04-APR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US89/01408
FILING DATE: 04-APR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/603,751
FILING DATE: 04-APR-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/176,899
FILING DATE: 04-APR-1988
ATTORNEY/AGENT INFORMATION:
NAME: Seidman, Stephanie L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Seidman, Stephanie L.
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 52516 (F
TELECOMUNICATION INFORMATION:
TELEPHONE: (619)238-0999
TELEPAX: (619)238-006
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 7175 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA (genomic) FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3.8%;
                 MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
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Best Local Similarity 48.0
Matches 201; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
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6855..7175
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144..6857
COMPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5'UTR
1..143
                                           COMPUTER: IBM CO
OPERATING SYSTEM:
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LOCATION:
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LOCATION:
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US-08-223-305C-8
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ADDRESSEE: Brown, Martin, Haller & McClain
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                                      1660 Union Street
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Matches 201; Conservative
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STRANDEDNESS: double
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MEDIUM TYPE: Floppy
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                                                                  San Diego
California
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FEATURE:
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LOCATION:
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                                                                                                                                    COUNTRY:
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TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMFOSITIONS AND
TITLE OF INVENTION: METHODS
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 49; DB 2; Length 717
Pred. No. 0.0091;
0; Mismatches 215; Indels
          FILING DATE: 04-APR-1988
ATTORNEY/AGENT INFORMATION:
NAME: Seldman: Stephanie L.
REGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 6362-55038
TELECOMMUNICATION INFORMATION:
TELEFAX: (619) 238-0062
TELEFAX: (619) 238-0063
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 7175 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: double
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Patent No. 6090623
GENERAL INFORMATION:
APPLICANT: Harpold, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.8%; {
milarity 48.0%; E
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
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APPLICANT: Williams, Mark
APPLICANT: McCue, Ann
APPLICANT: Gillespie, Alis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3'UTR
6855..7175
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144..6857
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Matches 201; Conserv
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NAME/KEY:
LOCATION:
FEATURE:
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FEATURE:
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, LOCATION:
US-08-149-097D-8
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US-08-949-386-8
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2988 geciecchiaddeciadacidacidacidacachacadacadacadacadacadacadadad 3047
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1928 gadcegedadececeacdeceaedecaedecaeceaeaedaarecedadeaaeaedeae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 7175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches 215; Indels
                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 3;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/290,012
FILING DATE: 11-A0C11994
APPLICATION NUMBER: 08/149,097
FILING DATE: 5-NOV-1993
PRIOR APPLICATION NUMBER: 08/105,536
APPLICATION NUMBER: 08/105,536
FILING DATE: 11-AUG-1993
ATTORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Seidman, Stephanie L.
REGISTRATION NUMBER: 37779
REFERENCE/DOCKET NUMBER: 519808
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 238-0999
TELEPAX: (619) 238-0999
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/949,386
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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NAME/KEY:
LOCATION:
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LOCATION:
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; LOCATION:
US-08-450-562-8
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3048 GCGGAGAGCGGGGGGGGGGGGCACCGGCCCGGCACAAGGCGCACCTGCT 3107
                                                                                                                                                                                              3108 CACGAĞGCTGTGGAĞAAĞGAĞACCACGGAGAAĞĞAĞĞCÇACĞGAĞAAĞAĞĞĞTĞAĞAT 3166
                                                                                                                      610 GGGCAGGCCGGGTGGGAGCAGCACCACCACCGGAGGACCGGAACAGTGTGGCGGCGAT 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Halfold, Michael APPLICANT: Hilliams, Mark APPLICANT: Williams, Mark APPLICANT: Williams, Mark APPLICANT: Williams, Mark APPLICANT: Gillespie, Alison APPLICANT: Feldman, Daniel APPLICANT: Feldman, Daniel APPLICANT: Brenner, Robert TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND TITLE OF INVENTION: METHODS NUMBER OF SEQUENCES: 38 CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 92101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/06903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION NUMBER: 08/404,950
FILING DATE: 13-MAR-1994
FILING DATE: 7-NOV-1994
FILING DATE: 7-NOV-1994
FILING DATE: 7-NOV-1994
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/311,363
FILING DATE: 23-SEPT-1994
PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 08/290,012
FILING DATE: 11-AUG-1994
PRIOR APPLICATION NUMBER: 08/23,305
FILING DATE: 11-AUG-1994
PRIOR APPLICATION NUMBER: 08/23,305
FILING DATE: 4-APR-1994
PRIOR APPLICATION NUMBER: 08/23,305
FILING DATE: 6-NOV-1994
PRIOR APPLICATION DATA: APPL-1994
PRIOR APPLICATION DATA: APPL-1994
PRIOR APPLICATION NUMBER: 08/19,097
FILING DATE: 5-NOV-1993
PRIOR APPLICATION DATA:
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FILING DATE: 11-AGG-1993
PRIOR APPLICATION DATA: 707/914,231
APPLICATION NUMBER: 07/914,231
FILING DATE: 13-UULY-1992
PRIOR APPLICATION NATA: APPLICATION NUMBER: 07/868,354
FILING DATE: 10-APR-1992
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 8, Application US/08450562
Patent No. 6096514
GENERAL INFORMATION:
APPLICANT: Harpold, Michael
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STATE: California
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US-08-450-562-8
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                                                                                                                                                                PFILING DATE: 30-NOV-1990
PFILING DATE: 30-NOV-1990
PRILING DATE: 00-NOV-1990
PRILING DATE: 00-NOV-1990
PRICH APPLICATION DATE: 07/482,384
PILING DATE: 02-FBB-1990
PRICH APPLICATION NUMBER: 07/482,384
PILING DATE: 02-FBB-1990
PRICH APPLICATION DATE: 07-FBB-1990
PRICH APPLICATION DATE: 07-APR-1989
PRICH APPLICATION NUMBER: PCT/VS89/01408
PRICH APPLICATION NUMBER: 07/176,899
PRICH APPLICATION NUMBER: 07/176,899
PRICH APPLICATION NUMBER: 03-NOVER SEGISTRATION NUMBER: 33,779
REFERENCE/DOCKET NUMBER: 6362-519812
TELEPHONE: (619) 238-0099
TELEPHONE: (619) 238-0062
INFORMATION FOR SEGID DOC: 8:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/745,206
FILING DATE: 15-AUG-1991
                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/620,250
FILING DATE: 30-NOV-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
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LENGTH: 7175 base pairs
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144..6857
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2928 GAGGGGGAGCCCCGACGCGCGCGCGCACCGGCACCGGGATCCGAGCAAGGAGTGCGCC 2987
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                                                                                                                                                        490 CCCACGAAGGGAGAGGGGAGCCCGGCATCCTCGGGGACCCGGGAACCGGAAGCGGAGG
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APPLICANT: Blis, Steven
APPLICANT: Blis, Steven
APPLICANT: Williams, Mark
APPLICANT: Williams, Mark
APPLICANT: Gillespie, Alison
APPLICANT: Gillespie, Alison
APPLICANT: Bredman, Daniel
APPLICANT: Brenner, Robert
TITLE OF INVENTION: METHODS
VUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: Brown, Martin, Haller & McClain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRANTE STEEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRANT APPLICATION DATA:
APPLICATION NAMER: US/08/450,272 FILING DATE:
CLASSIFICATION NAMER: US/08/450,272 FILING DATE:
CLASSIFICATION: 435 CLASSIFICATION NAMER: 08/404,950 FILING DATE: 13-Ma-1995 APPLICATION NUMBER: 08/336,257 FILING DATE: 7-NOV-1994 PRIOR APPLICATION NUMBER: 08/314,083 FILING DATE: 28-SEPT-1994 PRIOR APPLICATION NUMBER: 08/314,083 FILING DATE: 28-SEPT-1994 PRIOR APPLICATION DATE: 28-SEPT-1994 PRIOR APPLICATION NUMBER: 08/311,363 FILING DATE: 28-SEPT-1994 CLASSIFICATION DATA: APPLICATION NUMBER: 08/311,363 FILING DATE: 28-SEPT-1994 CLASSIFICATION NUMBER: 08/311,363 FILING DATE: 21-SEPT-1994 CLASSIFICATION NUMBER: 08/200,012
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APPLICATION NUMBER: 08/193,078
FILING DATE: 07-FEB-1994
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FILING DATE: 4-APR-1994
CLASSIFICATION: 435
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Patent No. 6387696
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1660 Union Street
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 07-FEB-
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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California
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REGISTRATION NUMBER: 33,779
REGISTRATION NUMBER: 34,779
REGISCOMMUNICATION INFORMATION:
TELEPHONE: (619) 450-8400
TELEPAK: (619) 597-5360
INFORMATION FOR SEQ ID NO: 8: SEQUENCE CHARACTERISTICS:
LENGTH: 7175 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Williams, Mark E.
APPLICANT: Standerman, Kenneth A.
APPLICANT: Harpold, Michael M.
TITLE OF INVENTION: METHODS
TITLE OF INVENTION: METHODS
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Pred. No. 0.0091;
0; Mismatches 215; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM COMPATION
COMPUTER: IBM COMPATION
SOFTWARE: FASESCY VETSION 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/984,709A
FILING DATE: 02-DEC-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                           Sequence 8, Application US/08984709A
Patent No. 6320032
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
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Best Local Similarity 48.0
Matches 201; Conservative
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
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6855..7175
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Heller Eh
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144..6857
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NAME/KEY:
LOCATION:
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US-08-984-709A-8
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FILING DATE: 5-NOV-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/105,536
FILING DATE: 11-AUG-1993
PRIOR APPLICATION DATA: 07/914,231
FILING DATE: 13-JULY-1992
CLASSIFICATION DATA: 07/868,354
FILING DATE: 10-APR-1992
CLASSIFICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 07/868,354
FILING DATE: 10-APR-1992
CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION NUMBER: PCT/US92/06903
FILING DATE: 14-AUG-1991
CLASSIFICATION NUMBER: 07/745,206
FILING DATE: 15-AUG-1991
CLASSIFICATION NUMBER: 07/745,206
FILING DATE: 15-AUG-1991
CLASSIFICATION NUMBER: 33,779
RECISTRATION NUMBER: 33,779
RECISTRATION NUMBER: 33,779
REPERRENCE/DOCKET NUMBER: 33,779
TELECOMMUNICATION:
TELECOMMUNICATIO
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TELEPAX: (619) 238-0062
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 7175 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
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Matches 201; Conservative (
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NAME/KEY:
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; LOCATION:
US-08-450-272-8
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Sequence 8597, Ap Sequence 11653, A Sequence 1133, Ap Sequence 5759, Ap Sequence 57212, A Sequence 77205, A Sequence 11, Applisequence 12, Applisequence 6879, App Sequence 14298, A Sequence 1140, Ap Sequence 174, App Sequence 1140, Ap Sequence 1140, App Sequence 1

Sequence 183, App Sequence 113, App Sequence 9739, App Sequence 150, App Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli

Sequence 1, Al Sequence 13, Sequence 7, Al

Sequence 33, Sequence

Sequence 5192, Sequence 1179,

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CATCCTTATCCGCAGGCCACCAAAGCCGGGGATGGCTGGAGGTTCGGAGCCAGGGGCTGC

CATCCTTATCCGCAGGCCACCAAAGCCGGGGATGGCTGGAGGTTCGGAGCCAGGGGCTGC

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Sequence 19, P Sequence 23, P Sequence 20, P

US-10-475-502-11 US-10-475-502-12 US-09-844-864-21 US-09-844-864-21 US-09-844-864-25 US-10-475-502-13 US-10-475-502-13 US-09-844-864-19 US-09-844-864-23

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Result

US-09-844-864-18

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Length 1277; Indels

DB 9;

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Run on:

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APPLICANT: Martin
APPLICANT: Ren, Yongsheng
APPLICANT: Ren, Yongsheng
APPLICANT: Wu, Xuemei
TILLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS
FILE REFERENCE: P01925US2 / 09807797 / OTA 99-48
CURRENT APPLICATION NUMBER: US/09/844,864
CURRENT APPLICATION NUMBER: 06/106,020
PRIOR APPLICATION NUMBER: 60/106,020
PRIOR PILING DATE: 1999-10-28
PRIOR PILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin version 3.0
SEQ ID NO 1.1
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100.0%; Pred. No. 0;
ive 0; Mismatches
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Best Local Similarity 100.
Matches 1277; Conservative
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59816
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1673
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 1277
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US-09-844-864-1
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Sequence 11, Appl
Sequence 12, Appl
Sequence 22, Appl
Sequence 22, Appl
Sequence 25, Appl
Sequence 25, Appl
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9681.641 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                              Description
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18: /cgn2_6/
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/cgn2_6/ptodata/1/pubpna/US31 NEW PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_NEW PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBGOMB.seq:*
                       GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       4176236 segs, 2824127955 residues
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                                                                                                                                                                     January 5, 2005, 18:07:17;
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                      nucleic search, using sw model
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Maximum DB seq length: 200000000
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Publication No. US20040254132A1
GENERAL INFORMATION:
APPLICANT: Wang, Pei
APPLICANT: War, Xuemei
APPLICANT: Warzuk, Martin M.
APPLICANT: Bai, Yuchen
TITLE OF INVENTION: Ovary-Specific Genes and Proteins
FILE REFERENCE: P01925US7
Score 799.4; DB 9;
Pred. No. 3e-227;
; Mismatches 1;
                          0; Mismatches
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Matches 800; Conservative
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| Sequence 18 Application US/09844864 |
| Patent No. US_0020042226A1 |
| GENERAL INPORMATION: |
| APPLICANT: Matzuk, Martin |
| APPLICANT: Wu, Xuemei |
| TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS |
| TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS |
| TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS |
| TURENT THING DATE: 2010-04-27 |
| PRIOR APPLICATION NUMBER: D019/844,864 |
| PRIOR APPLICATION NUMBER: E0/106,020 |
| PRIOR APPLICATION NUMBER: PCT/US99/25209 |
| PRIOR PILING DATE: 1998-10-28 |
| NUMBER OF SEQ ID NOS: 25 |
| SOFTWARE: Patentin version 3.0 |
| LENGTH: 814 |
| TYPE: DNA |
| ORGANISM: mus mus culus |
| US-09-844-864-18 |
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                                                                                                                                                                                                       Length 6873;
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                                                                                                                                                                                                       DB 18;
                                                                                                                                                                                                       Score 799.4; DB 18,
Pred. No. 7.4e-227;
0; Mismatches 1;
CURRENT APPLICATION NUMBER: US/10/475,502
CURRENT FILING DATE: 2003-10-22
PRIOR APPLICATION NUMBER: PCT US02/13245
PRIOR FILING DATE: 2002-04-26
PRIOR APPLICATION NUMBER: US 09/844,864
PRIOR FILING DATE: 2001-04-27
NUMBER OF SEQ ID NOS: 23
SOFTWARE: PatentIn version 3:1
LENGTH: 6873
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                                                                                                                                                                                                      Query Match
Best Local Similarity 99.9%;
Matches 800; Conservative
                                                                                                                                              TYPE: DNA
CORGANISM: mus musculus
US-10-475-502-11
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Similarity 97.5%; Score 753.8; DB 18; Length
S1; Conservative 0; Mismatches 7; Indels
                                       ; LOCATION: (1)...(4090)
; OTHER INFORMATION: N equals unknown US-10-475-502-12
; Sequence 12, Application US/10475502
; Publication No. US20040254132A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                          Query Match 59.0
Best Local Similarity 97.5
Matches 781; Conservative
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SOFTWARE: Paten
SEQ ID NO 13
LENGTH: 2075
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US-09-844-864-23
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                                           1205 CATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACA 1260
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                                                                                  250 CATGACAGACAGTGTTACTTGGATATAAAGCCTGTGAATAAAAGGTATTGCAAACA 305
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Marcin, Martin,
APPLICANT: Ren, Yongsheng
APPLICANT: Ren, Yongsheng
APPLICANT: Wu, Xuemei
TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS
FILE REFERENCE: P01925502 / 0980797 / 0TA 99-48
CURRENT APPLICATION NUMBER: 05/09/844,864
CURRENT FILING DATE: 1908-10-28
FRIOR FILING DATE: 1998-10-28
FRIOR FILING DATE: 1999-10-28
FRIOR FILING DATE: 1999-10-28
FRIOR FILING DATE: 1999-10-28
FRIOR FILING DATE: 1999-10-3
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Publication No. US20040254132A1
GENERAL INFORMATION:
GABREAL INFORMATION:
GAPLICANT: Wu, Xuemei
APPLICANT: Wu, Xuemei
APPLICANT: Wu, Xuemei
APPLICANT: Wu, Xuemei
APPLICANT: Wu, Yuchen
TITLE REFERENCE: P01925U3;
CURRENT APPLICATION NUMBER: US/10/475,502
CURRENT FILING DATE: 2003-10-22
FRIOR APPLICATION NUMBER: PCT US02/13245
FRIOR APPLICATION NUMBER: US 09/844,864
FRIOR FILING DATE: 2001-04-26
FRIOR FILING DATE: 2001-04-27
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96.7%; Pred. No. 6.3e
:ive 0; Mismatches
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Patent No. US20020042926A1
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Matches 266; Conservative
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CORGANISM: mus musculus
US-09-844-864-25
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US-10-475-502-13
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APPLICANT: May Xuamed
APPLICANT: Ren, Yongaheng
APPLICANT: Ren, Yongaheng
APPLICANT: Wu, Xuemed
TITLE CO INVENTION: OVARY SPECIFIC GENES AND PROTEINS
FILE REPERRINCE: P01925US2 / 09807797 / 0TA 99-48
CURRENT APPLICATION NUMBER: US/09/844,864
CURRENT FILING DATE: 2001-04-27
PRIOR PPLICATION NUMBER: 60/106,020
PRIOR PILING DATE: 1998-10-28
PRIOR PELING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PATENTIN VETSION 3.0
SEQ ID NO 19
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98.0%; Pred. No. 6.1e-19;
iive 0; Mismatches 2;
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Pred. No. 4.4e-29;
0; Mismatches 79
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71.1%;
NUMBER OF SEQ ID NOS: 23
SOFTWARE: PatentIn version 3.1
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Best Local Similarity 71.1
Matches 207; Conservative
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ORGANISM: mus musculus
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Matches 100; Conserv
                                                                                                                                                                                                                 TYPE: DNA ORGANISM: human
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Fatent No. US20020042926A1

GENERAL INPORMATION:

APPLICANT: Marzuk, Martin

APPLICANT: Ren, Yongsheng

APPLICANT: Wu, Xuemei

TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS

FILE REFERENCE: P01925US2 / 09807797 / OTA 99-48

CURRENT FILING DATE: 2001-04-27

PRIOR PILING DATE: 1998-10-28

PRIOR FILING DATE: 1998-10-28

PRIOR FILING DATE: 1998-10-28

PRIOR FILING DATE: 1999-10-28

WUMBER OF SEQ ID NOS: 25

SOFTWARE: PatentIn version 3.0

SEQ ID NO 20

LENGTH 105
           GENERAL INFORMATION:
APPLICANT: Matzin,
APPLICANT: Matzin,
APPLICANT: Ren, Vongsheng
APPLICANT: Ren, Vongsheng
APPLICANT: Ren, Vongsheng
APPLICANT: Ren, Vongsheng
APPLICANT: Wu, Xuemei
ITILE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS
FILE REPERENCE: P019250125 / 09807797 / OTA 99-48
CURRENT APPLICATION NUMBER: US/09/844,864
CURRENT FILING DATE: 1091-10-28
PRIOR APPLICATION NUMBER: PCT/US99/25209
PRIOR APPLICATION NUMBER: PCT/US99/25209
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin version 3:0
FENDING APPLICATION OF SECOND 10-28
SOFTWARE: PATENT OF SECOND 10-28
SOFTWARE: PATENT OF SECOND 10-28
SEQ ID NOS: 25
SEQ ID NO 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  855 GGAGAGCGCCTATGTGTGGTGTGCAGGGCACCAGTAAGGT 896
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Matches 100; Conservative
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Patent No. US20020042926A1
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ORGANISM: mus musculus
US-09-844-864-20
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Best Local S
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Matches
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US-09-844-864-24

RESULT 13

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Sequence 8597 Application US/10437963

Publication No. US2004012334341

GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: La Rosa, Thomas J.
APPLICANT: Cao, Yongweil
APPLICANT: Wu, Wei
APPLICANT: Wu, Wei
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TILLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(5321)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT APPLICATION NOS: 204966
SEQ ID NOS: 204966
SEQ ID NOS: 204966
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46.2%; Pred. No. 1.4e-05;
tive 0; Mismatches 293; Indels 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 105;
                                           APPLICANT: Mattuh, Martin, APPLICANT: Mattuk, Martin, APPLICANT: Ren, Yongeheng APPLICANT: Ren, Yongeheng APPLICANT: Ren, Yongeheng TITLE OF INVENTION: OVARY SPECIFIC GENES AND PROTEINS FILE REPERENCE: P01925US2 / 09807797 / 0TA 99-48 CURRENT APPLICATION NUMBER: US/09/844,864 CURRENT FILING DATE: 2001-04-27 PRIOR PELICATION NUMBER: 60/106,020 PRIOR FILING DATE: 1998-10-28 PRIOR APPLICATION NUMBER: PCT/US99/25209 PRIOR APPLICATION NUMBER: PCT/US99/25209 WUMBER OF SEQ ID NOS: 25 SOFTWARE: Patentin version 3.0 SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5.5%; Score 70.4; DB 9;
98.6%; Pred. No. 1.6e-10;
tive 0; Mismatches 1;
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US-10-437-963-8597
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Best Local Similarity 46.2%
Matches 258; Conservative
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Best Local Similarity 98.6'
Matches 71; Conservative
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Patent No. US20020042926A1
GENERAL INFORMATION:
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ORGANISM: Oryza sativa
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US-09-844-864-24
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RESULT 15
US-10-425-115-17653/C
i Sequence 17653, Application US/10425115
i Publication No. US20040214272A1
j GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
i APPLICANT: Zhou, Yihua
ITILE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
ITILE OF INVENTION: Plants
ITILE OF INVENTION: Plants
ITILE OF INVENTION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
i SEQ ID NO 17633
i LENGTH: 972
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562
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CCCTGCTGTGGGGATGGGTCCCCCGGTCGGTCAGCCGTGACGCTGCGGGTGCAGGTGA 268
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US-10-425-115-17653
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OTHER INFORMATION: unsure at all n locations
FEATURE:
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